

# What's Special About This Number?

If you know a distinctive fact about a number not listed here, please [e-mail](#) me.

primes graphs digits sums of powers bases  
combinatorics powers/polygonal Fibonacci  
geometry repdigits algebra perfect/amicable  
pandigital matrices divisors games/puzzles

0 is the [additive identity](#).

1 is the [multiplicative identity](#).

2 is the only even [prime](#).

3 is the number of spatial dimensions we live in.

4 is the smallest number of colors sufficient to color all planar maps.

5 is the number of [Platonic solids](#).

6 is the smallest [perfect number](#).

7 is the smallest number of sides of a [regular](#) polygon that is not [constructible](#) by straightedge and

compass.

8 is the largest [cube](#) in the [Fibonacci sequence](#).

9 is the maximum number of [cubes](#) that are needed to sum to any positive [integer](#).

10 is the base of our number system.

11 is the largest known [multiplicative persistence](#).

12 is the smallest [abundant number](#).

13 is the number of [Archimedian solids](#).

14 is the smallest even number  $n$  with no solutions to  $\phi(m) = n$ .

15 is the smallest [composite number](#)  $n$  with the property that there is only one [group](#) of order  $n$ .

16 is the only number of the form  $x^y = y^x$  with  $x$  and  $y$  being different [integers](#).

17 is the number of [wallpaper groups](#).

18 is the only positive number that is twice the sum of its digits.

19 is the maximum number of  $4^{\text{th}}$  powers needed to sum to any number.

20 is the number of [rooted trees](#) with 6 vertices.

21 is the smallest number of distinct [squares](#) needed to tile a [square](#).

**22** is the number of [partitions](#) of 8.

**23** is the smallest number of [integer](#)-sided boxes that tile a box so that no two boxes share a common length.

**24** is the largest number divisible by all numbers less than its [square root](#).

**25** is the smallest [square](#) that can be written as a sum of 2 positive [squares](#).

**26** is the only positive number to be directly between a [square](#) and a [cube](#).

**27** is the largest number that is the sum of the digits of its [cube](#).

**28** is the 2<sup>nd</sup> [perfect number](#).

**29** is the 7<sup>th</sup> [Lucas number](#).

**30** is the largest number with the property that all smaller numbers [relatively prime](#) to it are [prime](#).

**31** is a [Mersenne prime](#).

**32** is the smallest non-trivial 5<sup>th</sup> power.

**33** is the largest number that is not a sum of distinct [triangular numbers](#).

**34** is the smallest number with the property that it and its neighbors have the same number of [divisors](#).

**35** is the number of [hexominoes](#).

**36** is the smallest non-trivial number which is both [square](#) and [triangular](#).

**37** is the maximum number of 5<sup>th</sup> powers needed to sum to any number.

**38** is the last [Roman numeral](#) when written lexicographically.

**39** is the smallest number which has 3 different [partitions](#) into 3 parts with the same product.

**40** is the only number whose letters are in alphabetical order.

**41** is a value of  $n$  so that  $x^2 + x + n$  takes on [prime](#) values for  $x = 0, 1, 2, \dots, n-2$ .

**42** is the 5<sup>th</sup> [Catalan number](#).

**43** is the number of sided [7-diamonds](#).

**44** is the number of [derangements](#) of 5 items.

**45** is a [Kaprekar number](#).

**46** is the number of different arrangements (up to rotation and reflection) of 9 non-attacking [queens](#) on a 9×9 chessboard.

**47** is the largest number of [cubes](#) that cannot tile a [cube](#).

**48** is the smallest number with 10 [divisors](#).

**49** is the smallest number with the property that it and its neighbors are [squareful](#).

**50** is the smallest number that can be written as the sum of of 2 [squares](#) in 2 ways.

**51** is the 6<sup>th</sup> [Motzkin number](#).

**52** is the 5<sup>th</sup> [Bell number](#).

**53** is the only two digit number that is reversed in [hexadecimal](#).

**54** is the smallest number that can be written as the sum of 3 [squares](#) in 3 ways.

**55** is the largest [triangular number](#) in the [Fibonacci sequence](#).

**56** is the number of reduced 5×5 [Latin squares](#).

**57** = 111 in base 7.

**58** is the number of [commutative semigroups](#) of order 4.

**59** is the number of [stellations of an icosahedron](#).

**60** is the smallest number divisible by 1 through 6.

**61** is the 3<sup>rd</sup> [secant number](#).

**62** is the smallest number that can be written as the sum of of 3 distinct [squares](#) in 2 ways.

**63** is the number of [partially ordered sets](#) of 5 elements.

**64** is the smallest number with 7 [divisors](#).

**65** is the smallest number that becomes [square](#) if its reverse is either added to or subtracted from it.

**66** is the number of [8-diamonds](#).

**67** is the smallest number which is [palindromic](#) in bases 5 and 6.

**68** is the 2-digit string that appears latest in the decimal expansion of  $\pi$ .

**69** is a value of  $n$  where  $n^2$  and  $n^3$  together contain each digit once.

**70** is the smallest [weird number](#).

**71** divides the sum of the [primes](#) less than it.

**72** is the maximum number of [spheres](#) that can touch another [sphere](#) in a lattice packing in 6 dimensions.

**73** is the smallest multi-digit number which is one less than twice its reverse.

**74** is the number of different non-[Hamiltonian](#) polyhedra with a minimum number of vertices.

**75** is the number of orderings of 4 objects with ties allowed.

**76** is an [automorphic number](#).

**77** is the largest number that cannot be written as a sum of distinct numbers whose [reciprocals](#) sum to 1.

**78** is the smallest number that can be written as the sum of 4 distinct [squares](#) in 3 ways.

**79** is a permutable [prime](#).

**80** is the smallest number  $n$  where  $n$  and  $n+1$  are both products of 4 or more [primes](#).

**81** is the [square](#) of the sum of its digits.

**82** is the number of [6-hexes](#).

**83** is the number of [strongly connected digraphs](#) with 4 vertices.

**84** is the largest order of a [permutation](#) of 14 elements.

**85** is the largest  $n$  for which  $1^2+2^2+3^2+ \dots +n^2 = 1+2+3+ \dots +m$  has a solution.

**86** = 222 in base 6.

**87** is the sum of the [squares](#) of the first 4 [primes](#).

**88** is one of only 2 numbers known whose [square](#) has no isolated digits.

**89** =  $8^1 + 9^2$

**90** is the number of degrees in a right angle.

**91** is the smallest [pseudoprime](#) in base 3.

**92** is the number of different arrangements of 8 non-attacking [queens](#) on an 8×8 chessboard.

**93** = 333 in base 5.

**94** is a [Smith number](#).

**95** is the number of [planar partitions](#) of 10.

**96** is the smallest number that can be written as the difference of 2 [squares](#) in 4 ways.

**97** is the smallest number with the property that its first 3 multiples contain the digit 9.

**98** is the smallest number with the property that its first 5 multiples contain the digit 9.

**99** is a [Kaprekar number](#).

**100** is the smallest [square](#) which is also the sum of 4 consecutive [cubes](#).

**101** is the number of [partitions](#) of 13.

**102** is the smallest number with three different digits.

**103** has the property that placing the last digit first gives 1 more than triple it.

**104** is the smallest known number of unit line segments that can exist in the plane, 4 touching at every vertex.

**105** is the largest number  $n$  known with the property that  $n - 2^k$  is [prime](#) for  $k > 1$ .

**106** is the number of [trees](#) with 10 vertices.



**107** is the exponent of a [Mersenne prime](#).

**108** is 3 [hyperfactorial](#).

**109** has a 5<sup>th</sup> root that starts 2.55555....

**110** is the smallest number that is the product of two different substrings.

**111** is the smallest possible magic constant of a 3×3 [magic square](#) of distinct [primes](#).

**112** is the side of the smallest [square](#) that can be tiled with distinct [integer](#)-sided [squares](#).

**113** is a permutable [prime](#).

**114** = 222 in base 7.

**115** is the number of [rooted trees](#) with 8 vertices.

**116** is a value of n for which  $n! + 1$  is [prime](#).

**117** is the smallest possible value of the longest edge in a [Heronian Tetrahedron](#).

**118** is the smallest number that has 4 different [partitions](#) into 3 parts with the same product.

**119** is the smallest number n where either n or n+1 is divisible by the numbers from 1 to 8.

**120** is the smallest number to appear 6 times in [Pascal's triangle](#).

**121** is the only [square](#) of the form  $1 + n + n^2 + n^3 + n^4$ .

**122** is the smallest number  $n > 1$  so that  $n$  concatenated with  $n-1$  0's concatenated with the reverse of  $n$  is [prime](#).

**123** is the 10<sup>th</sup> [Lucas number](#).

**124** is the smallest number with the property that its first 3 multiples contain the digit 2.

**125** is the only number known that contains all its proper [divisors](#) as proper substrings.

**126** =  $9C_4$ .

**127** is a [Mersenne prime](#).

**128** is the largest number which is not the sum of distinct [squares](#).

**129** is the smallest number that can be written as the sum of 3 [squares](#) in 4 ways.

**130** is the number of functions from 6 unlabeled points to themselves.

**131** is a permutable [prime](#).

**132** is the smallest number which is the sum of all of the 2-digit numbers that can be formed with its digits.

**133** is the smallest number  $n$  for which the sum of the [proper divisors](#) of  $n$  divides  $\phi(n)$ .

**134** =  $8C_1 + 8C_3 + 8C_4$ .

**135** =  $1^1 + 3^2 + 5^3$ .

**136** is the sum of the [cubes](#) of the digits of the sum of the [cubes](#) of its digits.

**137** is the smallest [prime](#) with 3 distinct digits that remains [prime](#) if one of its digits is removed.

**138** is a value of  $n$  for which  $n!!! - 1$  is [prime](#).

**139** is the number of unlabeled [topologies](#) with 5 elements.

**140** is a [harmonic divisor number](#).

**141** is the 6<sup>th</sup> [central trinomial coefficient](#).

**142** is the number of [planar graphs](#) with 6 vertices.

**143** is the smallest quasi-Carmichael number in base 8.

**144** is the largest [square](#) in the [Fibonacci sequence](#).

**145** is a [factorion](#).

**146** = 222 in base 8.

**147** is the number of sided [6-hexes](#).

**148** is the number of [perfect graphs](#) with 6 vertices.

**149** is the smallest number whose [square](#) begins with three 2's.

**150** =  $10010110_2 = 2112_4 = 1100_5$ , each using 2 different digits an equal number of times.

**151** is a [palindromic prime](#).

**152** has a [square](#) composed of the digits 0-4.

**153** is a [narcissistic number](#).

**154** is the smallest number which is [palindromic](#) in bases 6, 8, and 9.

**155** is the sum of the [primes](#) between its smallest and largest [prime factor](#).

**156** is the number of [graphs](#) with 6 vertices.

**157** is the smallest number with  $\phi(2n+1) < \phi(2n)$ .

**158** is the number of [planar partitions](#) of 11.

**159** is the number of isomers of  $C_{11}H_{24}$ .

**160** is the number of [9-diamonds](#).

**161** is a [Cullen number](#).

**162** is the smallest number that can be written as the sum of 4 positive [squares](#) in 9 ways.

**163** is the largest [Heegner Number](#).

**164** is the smallest number which is the concatenation of squares in two different ways.

**165** is the midpoint of the  $n^{\text{th}}$  larger prime and  $n^{\text{th}}$  smaller prime, for  $1 \leq n \leq 6$ .

**166** is the number of monotone [Boolean functions](#) of 4 variables.

**167** is the smallest number whose 4<sup>th</sup> power begins with 4 identical digits

**168** is the size of the smallest [non-cyclic simple group](#) which is not an [alternating group](#).

**169** is the 7<sup>th</sup> [Pell number](#).

**170** is the smallest number  $n$  for which  $\phi(n)$  and  $\sigma(n)$  are both [square](#).

**171** has the same number of digits in [Roman numerals](#) as its [cube](#).

**172** = 444 in base 6.

**173** has a [square](#) containing only 2 digits.

**174** is the smallest number that can be written as the sum of 4 positive distinct [squares](#) in 6 ways.

**175** =  $1^1 + 7^2 + 5^3$ .

**176** is an [octagonal pentagonal number](#).

**177** is the number of [graphs](#) with 7 edges.

**178** has a [cube](#) with the same digits as another [cube](#).

**179** has a [square](#) comprised of the digits 0-4.

**180** is the total number of degrees in a triangle.

**181** is a [strobogrammatic prime](#).

**182** is the number of [connected bipartite graphs](#) with 8 vertices.

**183** is the smallest number  $n$  so that  $n$  concatenated with  $n+1$  is [square](#).

**184** is a [Kaprekar constant](#) in base 3.

**185** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 8 dimensional [hypercube](#).

**186** is the number of degree 11 [irreducible polynomials](#) over [GF\(2\)](#).

**187** is the smallest quasi-Carmichael number in base 7.

**188** is the number of [semigroups](#) of order 4.

**189** is a [Kaprekar constant](#) in base 2.

**190** is the largest number with the property that it and its distinct [prime factors](#) are [palindromic](#) in [Roman numerals](#).

**191** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**192** is the smallest number with 14 [divisors](#).

**193** is the largest number that can be written as  $ab + ac + bc$  with  $0 < a < b < c$  in a unique way.

**194** is the smallest number that can be written as the sum of 3 [squares](#) in 5 ways.

**195** is the smallest value of  $n$  such that  ${}_n\text{C}_n$  is divisible by  $n^2$ .

**196** is the smallest number that is not known to reach a [palindrome](#) when repeatedly added to its reverse.

**197** is a [Keith number](#).

**198** =  $11 + 99 + 88$ .

**199** is the 11<sup>th</sup> [Lucas number](#).

**200** is the smallest number which can not be made [prime](#) by changing one of its digits.

**201** is a [Kaprekar constant](#) in base 4.

**202** has a [cube](#) that contains only even digits.

**203** is the 6<sup>th</sup> [Bell number](#).

**204** is the [square root](#) of a [triangular number](#).

**205** =  $5 \times 41 = 541_6$ .

**206** is the smallest number whose English name contains all five vowels exactly once.

**207** has a 4<sup>th</sup> power where the first half of the digits are a [permutation](#) of the last half of the digits.

**208** is the 10<sup>th</sup> [Tetranacci number](#).

**209** is the smallest quasi-Carmichael number in base 9.

**210** is the product of the first 4 [primes](#).

**211** has a [cube](#) containing only 3 different digits.

**212** has a [square](#) with 4/5 of the digits are the same.

**213** is the number of [perfect squared rectangles](#) of order 13.

**214** is a value of  $n$  for which  $n!! - 1$  is [prime](#).

**215** = 555 in base 6.

**216** is the smallest [cube](#) that can be written as the sum of 3 [cubes](#).

**217** is a [Kaprekar constant](#) in base 2.

**218** is the number of [digraphs](#) with 4 vertices.

**219** is the number of [space groups](#), not including handedness.

**220** is the smallest [amicable number](#).

**221** is the number of [Hamiltonian planar graphs](#) with 7 vertices.

**222** is the number of [lattices](#) on 8 unlabeled nodes.



**223** is the smallest [prime](#)  $p$  which has more [primitive roots](#) below  $p/2$  than above  $p/2$ .

**224** is the [Entringer number](#)  $E(6,3)$ .

**225** is an [octagonal square number](#).

**226** are the first 3 digits of  $\pi^{226}$ .

**227** is the number of [connected planar graphs](#) with 8 edges.

**228** is the number of ways, up to rotation and reflection, of dissecting a [regular](#) 11-gon into 9 triangles.

**229** is the smallest [prime](#) that remains [prime](#) when added to its reverse.

**230** is the number of [space groups](#), including handedness.

**231** is the number of [partitions](#) of 16.

**232** is the number of  $7 \times 7$  [symmetric permutation matrices](#).

**233** is the smallest number with the property that it and its neighbors can be written as a sum of 2 [squares](#).

**234** is the number of ways to stack 12 pennies in a line so that each penny lies on the table or on two pennies.

**235** is the number of [trees](#) with 11 vertices.

**236** is the number of possible positions in Othello after 2 moves by both players.

**237** is the smallest number with the property that its first 3 multiples contain the digit 7.

**238** is the number of connected [partial orders](#) on 6 unlabeled elements.

**239** is the largest number that cannot be written as a sum of 8 or fewer [cubes](#).

**240** is the smallest number with 20 [divisors](#).

**241** is the only number  $n$  for which the  $n^{\text{th}}$  [prime](#) is  $\pi(n \pi(n))$ .

**242** is the smallest  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**243** =  $3^5$ .

**244** is the smallest number (besides 2) that can be written as the sum of 2 [squares](#) or the sum of two  $5^{\text{th}}$  powers.

**245** is a [stella octangula number](#).

**246** =  $9C_2 + 9C_4 + 9C_6$ .

**247** is the smallest possible difference between two [integers](#) that together contain each digit exactly once.

**248** is the smallest number  $n > 1$  for which the [arithmetic](#), [geometric](#), and [harmonic means](#) of  $\varphi(n)$  and  $\sigma(n)$  are all [integers](#).

**249** is the index of a [prime Woodall number](#).

**250** is the smallest multi-digit number so that the sum of the [squares](#) of its [prime factors](#) equals the sum of the [squares](#) of its digits.

**251** is the smallest number that can be written as the sum of 3 [cubes](#) in 2 ways.

**252** is the 5<sup>th</sup> [central binomial coefficient](#).

**253** is the smallest non-trivial [triangular star number](#).

**254** is the smallest multi-digit [composite number](#) all of whose [proper divisors](#) contain the digit 2.

**255** = 11111111 in base 2.

**256** is the smallest non-trivial 8<sup>th</sup> power.

**257** is a [Fermat prime](#).

**258** is a value of  $n$  so that  $n(n+9)$  is a [palindrome](#).

**259** = 1111 in base 6.

**260** is the constant of an 8×8 magic square.

**261** is the number of essentially different ways to dissect a [16-gon](#) into 7 [quadrilaterals](#).

**262** is the 5<sup>th</sup> [meandric number](#) and the 9<sup>th</sup> [open meandric number](#).

**263** is the largest known [prime](#) whose square is [strobogrammatic](#).

**264** is the largest known number whose square is [undulating](#).

**265** is the number of [derangements](#) of 6 items.

**266** is the [Stirling number of the second kind](#)  $S(8,6)$ .

**267** is the number of [planar partitions](#) of 12.

**268** is the smallest number whose product of digits is 6 times the sum of its digits.

**269** is the number of 6-octs.

**270** is a [harmonic divisor number](#).

**271** is the smallest [prime](#)  $p$  so that  $p-1$  and  $p+1$  are divisible by [cubes](#).

**272** is the 4<sup>th</sup> [tangent number](#).

**273** = 333 in base 9.

**274** is the [Stirling number of the first kind](#)  $s(6,2)$ .

**275** is the number of [partitions](#) of 28 in which no part occurs only once.

**276** =  $1^5 + 2^5 + 3^5$ .

**277** is a [Perrin number](#).

**278** is the closest [integer](#) to  $6^{\pi}$ .

**279** is the maximum number of  $8^{\text{th}}$  powers needed to sum to any number.

**280** is the number of ways 18 people around a round table can shake hands in a non-crossing way, up to rotation.

**281** is the sum of the first 14 [primes](#).

**282** is the number of planar partitions of 9.

**283** =  $2^5 + 8 + 3^5$ .

**284** is an [amicable number](#).

**285** is the number of [binary rooted trees](#) with 13 vertices.

**286** is the number of [rooted trees](#) with 9 vertices.

**287** is the sum of consecutive [primes](#) in 3 different ways.

**288** is the smallest non-[palindrome](#) non-[square](#) that when multiplied by its reverse is a [square](#).

**289** is a [Friedman number](#).

**290** has a base 3 representation that ends with its base 6 representation.

**291** is the largest number that is not the sum of distinct non-trivial powers.

**292** is the number of ways to make change for a dollar.

**293** is the number of ways to stack 20 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**294** is the number of [planar 2-connected graphs](#) with 7 vertices.

**295** is a structured deltoidal hexacontahedral number.

**296** is the number of [partitions](#) of 30 into distinct parts.

**297** is a [Kaprekar number](#).

**298** is a value of  $n$  so that  $n(n+3)$  is a [palindrome](#).

**299** is the maximum number of regions a [cube](#) can be cut into with 12 cuts.

**300** is the largest possible score in bowling.

**301** is a [6-hyperperfect number](#).

**302** is the number of ways to play the first 3 moves in Checkers.

**303** is the number of [bipartite graphs](#) with 8 vertices.

**304** is a [primitive semiperfect number](#).

**305** is an hexagonal prism number.

**306** is the number of 5-digit [triangular numbers](#).

**307** is a non-[palindrome](#) with a [palindromic square](#).

**308** is a [heptagonal pyramidal number](#).

**309** is the smallest number whose 5<sup>th</sup> power contains every digit at least once.

**310** = 1234 in base 6.

**311** is a permutable [prime](#).

**312** = 2222 in base 5.

**313** is the number of intersections when all the diagonals of a [regular](#) dodecagon are drawn.

**314** is the smallest number that can be written as the sum of 3 positive distinct [squares](#) in 6 ways.

**315** =  $(4+3) \times (4+1) \times (4+5)$ .

**316** has a digit product which is the digit sum of  $(3^1)^6$ .

**317** is the number of binary 4×4 matrices up to permutations of rows and columns.

**318** is the number of unlabeled [partially ordered sets](#) of 6 elements.

**319** is the smallest number with the property that the [partition](#) with the largest product does not have a maximum number of parts.

**320** is the maximum [determinant](#) of a binary  $10 \times 10$  matrix.

**321** is a [Delannoy number](#).

**322** is the 12<sup>th</sup> [Lucas number](#).

**323** is the smallest [composite number](#)  $n$  that divides the  $(n+1)^{\text{st}}$  [Fibonacci number](#).

**324** is the largest possible product of positive [integers](#) with sum 16.

**325** is a [3-hyperperfect number](#).

**326** is the number of permutations of some subset of 5 elements.

**327** is the largest number  $n$  so that  $n$ ,  $2n$ , and  $3n$  together contain every digit from 1-9 exactly once.

**328** concatenated with its successor is [square](#).

**329** is the number of [forests](#) with 10 vertices.

**330** =  $_{11}\text{C}_4$ .

**331** is both a [centered pentagonal number](#) and a [centered hexagonal number](#).

**332** is the number of [2-connected graphs](#) with 7 vertices

**333** is the number of [7-hexes](#).



**334** is the number of [trees](#) on 13 vertices with [diameter](#) 7.

**335** is the number of degree 12 [irreducible polynomials](#) over [GF\(2\)](#).

**336** =  ${}_8P_3$ .

**337** is the number of different resistances that can be created in a circuit of 8 equal resistors.

**338** is the smallest number for which both the number of [divisors](#) and the sum of its [prime factors](#) is a [perfect number](#).

**339** is the number of ways to divide 5 black and 5 white beads into piles.

**340** is a value of  $n$  for which  $n! + 1$  is [prime](#).

**341** is the smallest [pseudoprime](#) in base 2.

**342** is the number of inequivalent binary [linear codes](#) of length 8.

**343** is a strong [Friedman number](#).

**344** is the smallest number that can be written as the sum of a [cube](#) and a 7<sup>th</sup> power in more than one way.

**345** is half again as large as the sum of its proper [divisors](#).

**346** is a [Franel number](#).

**347** is a [Friedman number](#).

**348** is the smallest number whose  $5^{\text{th}}$  power contains exactly the same digits as another  $5^{\text{th}}$  power.

**349** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**350** is the [Stirling number of the second kind](#)  $S(7,4)$ .

**351** is the smallest number so that it and the surrounding numbers are all products of 4 or more [primes](#).

**352** is the number of different arrangements of 9 non-attacking [queens](#) on an  $9 \times 9$  chessboard.

**353** is the smallest number whose  $4^{\text{th}}$  power can be written as the sum of four  $4^{\text{th}}$  powers.

**354** is the sum of the first four  $4^{\text{th}}$  powers.

**355** is the number of labeled [topologies](#) with 4 elements.

**356** is the smallest [happy number](#) of height 6.

**357** has a base 3 representation that ends with its base 7 representation.

**358** has a base 3 representation that ends with its base 7 representation.

**359** has a base 3 representation that ends with its base 7 representation.

**360** is the number of degrees in a circle.

**361** is the number of intersections on a Go board.

**362** and its double and triple all use the same number of digits in [Roman numerals](#).

**363** is a [perfect totient number](#).

**364** =  $_{14}C_3$ .

**365** is the smallest number that can be written as a sum of consecutive [squares](#) in more than 1 way.

**366** is the number of days in a leap year.

**367** is the largest number whose [square](#) has strictly increasing digits.

**368** is the number of ways to tile a 4×15 rectangle with the [pentominoes](#).

**369** is the number of [octominoes](#).

**370** is a [narcissistic number](#).

**371** is a [narcissistic number](#).

**372** is a [hexagonal pyramidal number](#).

**373** is a permutable [prime](#).

**374** is the smallest number that can be written as the sum of 3 [squares](#) in 8 ways.

**375** is a [truncated tetrahedral number](#).

**376** is an [automorphic number](#).

**377** is the 14<sup>th</sup> [Fibonacci number](#).

**378** is the maximum number of regions a [cube](#) can be cut into with 13 cuts.

**379** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**380** is the number of necklaces possible with 13 beads, each being one of 2 colors.

**381** is a [Kaprekar constant](#) in base 2.

**382** is the smallest number  $n$  with  $\sigma(n) = \sigma(n+3)$ .

**383** is the number of [Hamiltonian graphs](#) with 7 vertices.

**384** =  $8!! = 12!!!!$ .

**385** is the number of [partitions](#) of 18.

**386** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of 11<sup>th</sup> [roots of unity](#).

**387** is the smallest number with [sort-then-add](#) persistence of 10.

**388** is the maximum value of  $n$  so that there exist 6 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 6 stamps.

**389** is the smallest [prime](#) so that it and the next 3 [primes](#) are all equal to 1 (mod 4).

**390** is the number of [partitions](#) of 32 into distinct parts.

**391** ???

**392** is a [Kaprekar constant](#) in base 5.

**393** is the 7<sup>th</sup> [central trinomial coefficient](#).

**394** is a [Schröder number](#).

**395** does not occur in its [factorial](#) in base 2.

**396** is the number of 3×3 sliding puzzle positions that require exactly 11 moves to solve starting with the hole in a corner.

**397** is a [Cuban prime](#).

**398** is the number of [integers](#) with [complexity](#) 22.

**399** is a [Lucas-Carmichael number](#).

**400** = 1111 in base 7.

**401** is the number of [connected planar Eulerian graphs](#) with 9 vertices.

**402** is the number of [graphs](#) with 8 vertices and 9 edges.

**403** is the product of two [primes](#) which are reverses of each other.

**404** is the number of sided [10-hexes](#) with holes.

**405** is a [pentagonal pyramidal number](#).

**406** is the number of ways to tile a  $3 \times 17$  rectangle with  $3 \times 1$  rectangles.

**407** is a [narcissistic number](#).

**408** is the 8<sup>th</sup> [Pell number](#).

**409** is the number of [graphs](#) with 8 vertices with [clique number](#) 2.

**410** is the smallest number that can be written as the sum of 2 distinct [prime](#) powers in 2 ways.

**411** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**412** is the number of subsets of  $\{1, 2, 3, \dots, 11\}$  that have a sum divisible by 5.

**413** is a structured hexagonal diamond number.

**414** is a value of  $n$  for which  $n^4$ ,  $n^5$ ,  $n^6$ , and  $n^7$  have the same digit sum.

**415** is the 10<sup>th</sup> [Iccanobif](#) number, where each term is the reverse of the sum of the previous two numbers.

**416** is the number of subsets of the 15<sup>th</sup> [roots of unity](#) that add to a real number.

**417** is the smallest number so that it and the next 3 numbers have different numbers of distinct [prime factors](#).

**418** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**419** is the number of ways to divide a 6×6 grid of points into two sets using a straight line.

**420** is the smallest number divisible by 1 through 7.

**421** is the number of [commutative monoids](#) of order 6.

**422** is the smallest number whose 8<sup>th</sup> power has 21 digits.

**423** is a number that does not have any digits in common with its [cube](#).

**424** ???

**425** is the number of subsets of {1,2,3,...,11} that have an [integer](#) average.

**426** is a [stella octangula number](#).

**427** is a value of n for which  $n! + 1$  is [prime](#).

**428** has the property that its [square](#) is the concatenation of two consecutive numbers.

**429** is the 7<sup>th</sup> [Catalan number](#).

**430** is the number of necklaces possible with 6 beads, each being one of 4 colors.

**431** is the index of a [prime Fibonacci number](#).

**432** =  $4 \times 3^3 \times 2^2$ .

**433** is the index of a [prime Fibonacci number](#).

**434** is the smallest [composite](#) value of  $n$  for which  $\sigma(n) + 2 = \sigma(n+2)$ .

**435** is the number of ordered [partitions](#) of 16 into distinct parts.

**436** is the smallest number whose [cube](#) contains four 8's.

**437** has a [cube](#) with the last 3 digits the same as the 3 digits before that.

**438** = 666 in base 8.

**439** is the smallest [prime](#) where inserting the same digit between every pair of digits never yields another [prime](#).

**440** is the number of [permutations](#) of 12 items that fix 9 elements.

**441** is the smallest [square](#) which is the sum of 6 consecutive [cubes](#).

**442** is the number of [planar partitions](#) of 13.

**443** is a value of  $n$  for which  $\sigma(n)$  is a [repdigit](#).

**444** is the largest known  $n$  for which there is a unique [integer](#) solution to  $a_1 + \dots + a_n = (a_1) \dots (a_n)$ .

**445** has a base 10 representation which is the reverse of its base 9 representation.

**446** is the smallest number that can be written as the sum of 3 distinct [squares](#) in 8 ways.



**447** is the smallest number of [convex](#) quadrilaterals formed by 15 points in general position.

**448** is the number of [10-iamonds](#).

**449** has a base 3 representation that begins with its base 7 representation.

**450** is the number of [13-iamonds](#) with holes.

**451** is the smallest number whose [reciprocal](#) has period 10.

**452** is the closest [integer](#) to  $7^{\pi}$ .

**453** is the only number  $n$  so that  $n$ ,  $2n$ , and  $6n$  together contain every digit exactly once.

**454** is the largest number known that cannot be written as a sum of 7 or fewer [cubes](#).

**455** =  $15C_3$ .

**456** is the number of [tournaments](#) with 7 vertices.

**457** is the index of a [prime Euclid number](#).

**458** is a number that does not have any digits in common with its [cube](#).

**459** is the smallest number  $n$  for which  $\text{reverse}(n) - n$  contains the same digits as  $n$ .

**460** ???

**461** is the number of ways to stack 18 pennies in contiguous rows so that each penny lies on the

table or on two pennies.

462 =  $11\text{C}_5$ .

463 is the smallest [prime](#) so that it and the next 6 [primes](#) are all equal to 3 (mod 4).

464 is the maximum number of regions space can be divided into by 12 [spheres](#).

465 is a [Kaprekar constant](#) in base 2.

466 = 1234 in base 7.

467 has strictly increasing digits in bases 7, 9, and 10.

468 = 3333 in base 5.

469 is a value of  $n$  for which  $n! - 1$  is [prime](#).

470 has a base 3 representation that ends with its base 6 representation.

471 is the smallest number with the property that its first 4 multiples contain the digit 4.

472 is the number of ways to tile a  $5 \times 5$  square with [integer](#)-sided squares.

473 is the largest known number whose [square](#) and  $4^{\text{th}}$  power use different digits.

474 is a member of the [Fibonacci](#)-type sequence starting with 1 and 8.

475 has a [square](#) that is composed of overlapping [squares](#) of smaller numbers.

**476** is the number of different products of subsets of the set  $\{1, 2, 3, \dots, 11\}$ .

**477** is the smallest number whose [cube](#) contains four 3's.

**478** is the 7<sup>th</sup> [Pell-Lucas number](#).

**479** is the number of sets of distinct positive [integers](#) with mean 6.

**480** is the smallest number which can be written as the difference of 2 [squares](#) in 8 ways.

**481** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 10 dimensional [hypercube](#).

**482** is a number whose [square](#) and [cube](#) use different digits.

**483** is the last 3-digit string in the decimal expansion of [π](#).

**484** is a [palindrome](#) in base 3 and in base 10.

**485** is the number of [categories](#) with 6 [morphisms](#) and 2 objects.

**486** is a [Perrin number](#).

**487** is the number of [Hadamard matrices](#) of order 28.

**488** ???

**489** is an [octahedral number](#).

**490** is the number of [partitions](#) of 19.

**491** is the smallest number  $n$  so that the largest [prime factors](#) of the numbers  $n$  through  $n+4$  decrease.

**492** is a [Hexanacci number](#).

**493** is a [Lucas 7-step number](#).

**494** is the number of unlabeled [distributive lattices](#) with 14 elements.

**495** is the [Kaprekar constant](#) for 3-digit numbers.

**496** is the 3<sup>rd</sup> [perfect number](#).

**497** is the number of [graphs](#) with 8 edges.

**498** is the number of necklaces possible with 8 beads, each being one of 3 colors.

**499** is the number of ways to place 26 points on a  $13 \times 13$  grid so that [no 3 points are on a line](#).

**500** is the number of planar partitions of 10.

**501** is the number of [partitions](#) of 5 items into ordered lists.

**502** uses the same digits as  $\varphi(502)$ .

**503** is the smallest [prime](#) which is the sum of the [cubes](#) of the first few [primes](#).

504 =  $9P_3$ .

505 =  $10C_5 + 10C_0 + 10C_5$ .

506 is the sum of the first 11 [squares](#).

507 is the number of [rooted ternary trees](#) with 10 vertices.

508 ???

509 is the index of a [prime Fibonacci number](#).

510 is the number of [binary rooted trees](#) with 14 vertices.

511 = 111111111 in base 2.

512 is the [cube](#) of the sum of its digits.

513 is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{22}$ .

514 is the smallest number whose [cube](#) begins with 13579.

515 is the number of [graphs](#) on 6 vertices with no isolated vertices.

516 is the number of [partitions](#) of 32 in which no part occurs only once.

517 does not occur in its [factorial](#) in base 2.

518 =  $5^1 + 1^2 + 8^3$ .

**519** is the number of [trees](#) on 15 vertices with [diameter](#) 5.

**520** is the number of ways to place 2 non-attacking kings on a 6×6 chessboard.

**521** is the 13<sup>th</sup> [Lucas number](#).

**522** is the number of ways to place a non-attacking white and black pawn on a 6×6 chessboard.

**523** is the smallest [prime](#) that is followed by 17 [composite numbers](#).

**524** is the number of [6-kings](#).

**525** is a [hexagonal pyramidal number](#).

**526** is the number of ways to cut a 8×8 chessboard into 2 pieces with equal areas with a cut that only travels up and right.

**527** is the smallest number  $n$  for which there do not exist 4 smaller numbers so that  $a_1! a_2! a_3! a_4! n!$  is [square](#).

**528** concatenated with its successor is [square](#).

**529** is the smallest number  $n$  so that the continued fraction for  $n/k$  contains no 2's for any  $1 \leq k \leq n$ .

**530** is the sum of the first 3 [perfect numbers](#).

**531** is the smallest number with the property that its first 4 multiples contain the digit 1.

**532** is a hendecagonal pyramidal number.

**533** is the number of [degree sequences](#) for [graphs](#) with 5 vertices.

**534** ???

**535** is a [palindrome](#) whose  $\phi(n)$  is also [palindromic](#).

**536** is the number of solutions of the [stomachion puzzle](#).

**537** divides the sum of the [cubes](#) of the first 537 [primes](#).

**538** is the 10<sup>th</sup> [open meandric number](#).

**539** is the number of [multigraphs](#) with 5 vertices and 9 edges.

**540** is divisible by its reverse.

**541** is the number of orderings of 5 objects with ties allowed.

**542** is a member of the [Fibonacci](#)-type sequence starting with 3 and 8.

**543** is a number whose [square](#) and [cube](#) use different digits.

**544** is the [generalized Catalan number](#)  $C(14,3)$ .

**545** has a base 3 representation that begins with its base 4 representation.

**546** [undulates](#) in bases 3, 4, and 5.

**547** is the smallest number that can not be written using 11 copies of 11 and the operations +, −, ×, and ÷.

**548** is the maximum number of 9<sup>th</sup> powers needed to sum to any number.

**549** ???

**550** is a [pentagonal pyramidal number](#).

**551** is the number of [trees](#) with 12 vertices.

**552** is the number of [prime knots](#) with 11 [crossings](#).

**553** is a [Huay rhombic dodecahedral number](#).

**554** is the number of self-dual [planar graphs](#) with 20 edges.

**555** is a [repdigit](#).

**556** are the first 3 digits of  $4^{556}$ .

**557** ???

**558** divides the sum of the largest [prime factors](#) of the first 558 positive [integers](#).

**559** is a [centered cube number](#).

**560** =  $_{16}\text{C}_3$ .



**561** is the smallest [Carmichael number](#).

**562** is the maximum number of regions a circle can be cut into by joining 11 points on the circumference with straight lines.

**563** is the largest known [Wilson prime](#).

**564** is the number of [13-ominoes](#) with a horizontal or vertical line of symmetry.

**565** is a structured truncated octahedral number.

**566** is the number of ways to place 24 points on a  $12 \times 12$  grid so that [no 3 points are on a line](#).

**567** has the property that it and its [square](#) together use the digits 1-9 once.

**568** is the smallest number whose 7<sup>th</sup> power can be written as the sum of seven 7<sup>th</sup> powers.

**569** is the smallest number  $n$  for which the concatenation of  $n$ ,  $(n+1)$ , ...  $(n+30)$  is [prime](#).

**570** is the product of all the [prime palindromic Roman numerals](#).

**571** is the index of a [prime Fibonacci number](#).

**572** is the smallest number which has equal numbers of every digit in bases 2 and 3.

**573** has the property that its [square](#) is the concatenation of two consecutive numbers.

**574** is the maximum number of pieces a [torus](#) can be cut into with 14 cuts.

**575** is a [palindrome](#) that is one less than a [square](#).

**576** is the number of  $4 \times 4$  [Latin squares](#).

**577** is a [Proth prime](#).

**578** is the number of [graphs](#) with 7 vertices with [clique number](#) 3.

**579** is the number of [graphs](#) with 7 vertices that have [chromatic number](#) 3.

**580** is the 6<sup>th</sup> central quadrinomial coefficient.

**581** has a base 3 representation that begins with its base 4 representation.

**582** is the number of [antisymmetric relations](#) on a 5 element set.

**583** is the smallest number whose [reciprocal](#) has period 26.

**584** is the number of ways to color the vertices of a triangle with 12 colors, up to rotation.

**585** is a [palindrome](#) in base 2, base 8, and in base 10.

**586** is the smallest number that appears in its [factorial](#) 6 times.

**587** is the smallest number whose digit sum is larger than that of its [cube](#).

**588** is the number of possible rook moves on a  $7 \times 7$  chessboard.

**589** is a centered tetrahedral number.

**590** is a value of  $n$  for which  $\varphi(n) + \varphi(n+1)$  divides  $\sigma(n) + \sigma(n+1)$ .

**591** is the number of ways to stack 23 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**592** evenly divides the sum of its rotations.

**593** is a [Leyland number](#).

$$594 = 1^5 + 2^9 + 3^4.$$

**595** is the number of ways to tile a  $3 \times 18$  rectangle with  $3 \times 1$  rectangles.

**596** is the number of [Hamiltonian cycles](#) of a  $4 \times 9$  rectangle [graph](#).

**597** is a value of  $n$  for which  $n!!! + 1$  is [prime](#).

$$598 = 5^1 + 9^2 + 8^3.$$

**599** is the smallest number whose digits add to 23.

**600** and its reverse are both the averages of [twin primes](#).

**601** is the location of the first occurrence of 3 consecutive zeroes in the decimal digits of  $\pi$ .

**602** are the first 3 digits of  $5^{602}$ .

**603** is the smallest number  $n$  so that  $n$ ,  $n+1$ , and  $n+2$  are all the product of a [prime](#) and the [square](#) of a [prime](#).

**604** and the two numbers before it and after it are all products of exactly 3 [primes](#).

**605** has a sum of digits equal to its largest [prime factor](#).

**606** is the first non-trivial number that is both 11-gonal and centered 11-gonal.

**607** is the exponent of a [Mersenne prime](#).

**608** is a number that does not have any digits in common with its [cube](#).

**609** is a [strobogrammatic number](#).

**610** is the smallest [Fibonacci number](#) that begins with 6.

**611** ???

**612** is a number whose [square](#) and [cube](#) use different digits.

**613** is the index of a [prime Lucas number](#).

**614** is the smallest number that can be written as the sum of 3 [squares](#) in 9 ways.

**615** is the [trinomial coefficient](#)  $T(10,6)$ .

**616** is a [Padovan number](#).

**617**  $= 1!^2 + 2!^2 + 3!^2 + 4!^2$ .

**618** is the number of [ternary square-free words](#) of length 15.

**619** is a [strobogrammatic prime](#).

**620** is the number of sided [7-hexes](#).

**621** is the number of ways to 9-color the faces of a [tetrahedron](#).

**622** ???

**623** is the number of inequivalent asymmetric [Ferrers graphs](#) with 23 points.

**624** is the smallest number with the property that its first 5 multiples contain the digit 2.

**625** is an [automorphic number](#).

**626** is a [palindrome](#) in base 5 and in base 10.

**627** is the number of [partitions](#) of 20.

**628** is the sum of the [squares](#) of 4 consecutive [primes](#).

**629** evenly divides the sum of its rotations.

**630** is a [triangular number](#), 3 times a [triangular number](#), and 6 times a [triangular number](#).

**631** has a base 2 representation that begins with its base 5 representation.

**632** is the number of triangles formed by connecting the diagonals of a regular octagon.

**633** is the smallest number  $n$  whose  $5^{\text{th}}$  root has a decimal part that begins with the digits of  $n$ .

**634** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**635** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**636** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**637** = 777 in base 9.

**638** is the number of fixed [5-kings](#).

**639** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**640** = 16[!!!!!!](#).

**641** is the smallest [prime factor](#) of  $2^{2^5} + 1$ .

**642** is the smallest number with the property that its first 6 multiples contain the digit 2.

**643** is the largest [prime factor](#) of 123456.

**644** is a [Perrin number](#).

**645** is the largest  $n$  for which  $1+2+3+ \dots +n = 1^2+2^2+3^2+ \dots +k^2$  for some  $k$ .

**646** is the number of [connected planar graphs](#) with 7 vertices.

**647** ???

**648** is the smallest number whose decimal part of its 6<sup>th</sup> root begins with the digits 1-9 in some

order.

**649** is the smallest number  $n$  so that  $n^2$  is 1 more than 13 times a [square](#).

**650** is the sum of the first 12 [squares](#).

**651** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**652** is the only known [non-perfect number](#) whose number of [divisors](#) and sum of smaller [divisors](#) are [perfect](#).

**653** is the only known [prime](#) for which 5 is neither a [primitive root](#) or a [quadratic residue](#) of  $4n^2+1$ .

**654** has a [square](#) that is the sum of a [cube](#) and 5<sup>th</sup> power.

**655** ???

**656** is a [palindrome](#) in base 3 and in base 10.

**657** is the number of ways to tile a  $4 \times 22$  rectangle with  $4 \times 1$  rectangles.

**658** is the number of triangles of any size contained in the triangle of side 13 on a triangular grid.

**659** is an Eisenstein-Mersenne prime.

**660** is the order of a [non-cyclic simple group](#).

**661** is the largest [prime factor](#) of  $8! + 1$ .

**662** is the index of the smallest [triangular number](#) that contains the digits 1, 2, 3, 4, and 5.

**663** is the [generalized Catalan number](#)  $C(15,3)$ .

**664** is a value of  $n$  so that  $n(n+7)$  is a [palindrome](#).

**665** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**666** is the largest rep-digit [triangular number](#).

**667** is the number of asymmetric [trees](#) with 16 vertices.

**668** is the number of legal pawn moves in Chess.

**669** is the number of unsymmetrical ways to dissect a [regular](#) 12-gon into 10 triangles.

**670** is an [octahedral number](#).

**671** is a [rhombic dodecahedral number](#).

**672** is a [multi-perfect number](#).

**673** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**674** ???

**675** is the smallest order for which there are 17 [groups](#).

**676** is the smallest [palindromic square](#) number whose [square root](#) is not [palindromic](#).

**677** is the closest [integer](#) to  $11^e$ .



**678** is a member of the [Fibonacci](#)-type sequence starting with 1 and 7.

**679** is the smallest number with [multiplicative persistence](#) 5.

**680** is the smallest [tetrahedral number](#) that is also the sum of 2 [tetrahedral numbers](#).

**681** divides the sum of the first 681 [composite numbers](#).

**682** =  ${}_{11}C_6 + {}_{11}C_8 + {}_{11}C_2$ .

**683** is a [Wagstaff prime](#).

**684** is the sum of 3 consecutive [cubes](#).

**685** ???

**686** is the number of [partitions](#) of 35 in which no part occurs only once.

**687** is the closest [integer](#) to  $8^\pi$ .

**688** is a [Friedman number](#).

**689** is the smallest number that can be written as the sum of 3 distinct [squares](#) in 9 ways.

**690** is the smallest number that can not be written as the sum of a [triangular number](#), a [cube](#), and a [Fibonacci number](#).

**691** is the smallest [prime](#)  $p$  for which  $x^5 = x^4 + x^3 + x^2 + x + 1 \pmod{p}$  has 5 solutions.

**692** is a number that does not have any digits in common with its [cube](#).

**693** are the first 3 decimal digits of [ln](#)(2).

**694** is the number of different arrangements (up to rotation and reflection) of 7 non-attacking [rooks](#) on a 7×7 chessboard.

**695** is the maximum number of pieces a [torus](#) can be cut into with 15 cuts.

**696** is a [palindrome](#) n so that n(n+8) is also [palindromic](#).

**697** is a [12-hyperperfect number](#).

**698** =  $3^2 + 4^3 + 5^4$ .

**699** is a value of n for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**700** is the number of symmetric 8-cubes.

**701** =  $1^0 + 2^1 + 3^2 + 4^3 + 5^4$ .

**702** ???

**703** is a [Kaprekar number](#).

**704** is the number of sided [octominoes](#).

**705** is the smallest [Lucas pseudoprime](#).

706 ???

707 is the smallest number whose [reciprocal](#) has period 12.

708 is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 12 stamps.

709 is the number of [connected planar graphs](#) with 9 edges.

710 is the number of [connected graphs](#) with 9 edges.

711 is the name of a chain of convenience stores.

712 is the largest number known that does not have any digits in common with its  $8^{\text{th}}$  power.

713 is the number of [commutative monoids](#) of order 7 with 4 [idempotents](#).

714 is the smallest number which has equal numbers of every digit in bases 2 and 5.

715 =  $13C_4$ .

716 is the smallest number whose [cube](#) contains four 6's.

717 is a [palindrome](#) in base 2 and in base 10.

718 is the number of unlabeled [topologies](#) with 6 elements.

719 is the number of [rooted trees](#) with 10 vertices.

**720** = 6!

**721** is the smallest number which can be written as the difference of 2 [cubes](#) in 2 ways.

**722** is the sum of the 4<sup>th</sup> powers of the first 3 [primes](#).

**723** = (1!)! + (2!)! + (3!)!.

**724** is the number of different arrangements of 10 non-attacking [queens](#) on an 10×10 chessboard.

**725** ???

**726** is the number of 4-step self-avoiding walks on the cubic lattice.

**727** has the property that its [square](#) is the concatenation of two consecutive numbers.

**728** is the smallest number n where n and n+1 are both products of 5 or more [primes](#).

**729** = 3<sup>6</sup>.

**730** is the number of [connected bipartite graphs](#) with 9 vertices.

**731** is the number of [planar partitions](#) of 14.

**732** = 1<sup>7</sup> + 2<sup>6</sup> + 3<sup>5</sup> + 4<sup>4</sup> + 5<sup>3</sup> + 6<sup>2</sup> + 7<sup>1</sup>.

**733** is the sum of the digits of 4<sup>4<sup>4</sup></sup>.

**734** is the smallest number that can be written as the sum of 3 distinct non-zero [squares](#) in 10 ways.

**735** is the smallest number that is the concatenation of its distinct [prime factors](#).

**736** is a strong [Friedman number](#).

**737** is a Boeing plane.

**738** =  $6 + 66 + 666$ .

**739** has a base 2 representation that begins with its base 9 representation.

**740** is the number of [self-avoiding walks](#) of length 8.

**741** is the number of [multigraphs](#) with 6 vertices and 8 edges.

**742** is the smallest number that is one more than triple its reverse.

**743** is the number of [independent sets](#) of the graph of the 4-dimensional [hypercube](#).

**744** is the number of [perfect squared rectangles](#) of order 14.

**745** is the smallest number whose [square](#) begins with three 5's.

**746** =  $1^7 + 2^4 + 3^6$ .

**747** is a Boeing plane.

**748** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 12 moves to solve starting with the hole in a corner.

**749** is the number of ways to divide a  $7 \times 7$  grid of points into two sets using a straight line.

**750** is the [Stirling number of the second kind](#)  $S(10,8)$ .

**751** is the index of a [prime Woodall number](#).

**752** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 11 dimensional [hypercube](#).

**753** is the smallest number whose [cube](#) contains 4 consecutive 7's.

**754** ???

**755** is the number of [trees](#) on 14 vertices with [diameter](#) 6.

**756** is the maximum number of regions space can be divided into by 14 [spheres](#).

**757** is the smallest number whose [reciprocal](#) has a period of 27.

**758** ???

**759** is the number of octads in the [large Witt design](#).

**760** is the number of [partitions](#) of 37 into distinct parts.

**761** ???

**762** is the starting location of 999999 in the decimal expansion of  [\$\pi\$](#) .

**763** is the smallest number whose  $4^{\text{th}}$  power contains every digit at least once.

**764** is the number of  $8 \times 8$  [symmetric permutation matrices](#).

**765** is a [Kaprekar constant](#) in base 2.

**766** is the number of [series-reduced planted trees](#) with 9 leaves.

**767** is the largest  $n$  so that  $n^2 = mC_0 + mC_1 + mC_2 + mC_3$  has a solution.

**768** is the number of subsets of  $\{1, 2, 3, \dots, 12\}$  that have an [integer](#) average.

**769** is the total number of digits of all [binary numbers](#) of length 1-7.

**770** is the number of digits of the  $15^{\text{th}}$  [perfect number](#).

**771** is the number of intersections when all the diagonals of a [regular](#) 14-gon are drawn.

**772** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 21 ways.

**773** is the smallest odd number  $n$  so that  $n+2^k$  is [composite](#) for all  $k < n$ .

**774** ???

**775** is the smallest number whose  $9^{\text{th}}$  power has 26 digits.

**776** ???

**777** is a [repdigit](#) in base 6 and in base 10.

**778** is the number of ways a  $5 \times 1$  rectangle can be surrounded by  $5 \times 1$  rectangles.

**779** ???

**780** =  $(5+7) \times (5+8) \times (5+0)$ .

**781** = 11111 in base 5.

**782** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**783** is the number of [11-ominoes](#) that tile the plane by translation.

**784** is the sum of the first 7 [cubes](#).

**785** are the last 3 digits of the sum of the first 785 [squares](#).

**786** is the largest known  $n$  for which  $2_n C_n$  is not divisible by the square of an odd [prime](#).

**787** is a [palindrome](#) in base 3 and in base 10.

**788** is the smallest of 6 consecutive numbers divisible by 6 consecutive [primes](#).

**789** are the first 3 digits of  $9^{789}$ .

**790** ???

**791** is the smallest number  $n$  where either it or its neighbors are divisible by the numbers from 1



to 12.

**792** is the number of [partitions](#) of 21.

**793** is one less than twice its reverse.

**794** =  $1^6 + 2^6 + 3^6$ .

**795** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**796** ???

**797** is the number of [functional graphs](#) on 9 vertices.

**798** is the number of [ternary square-free words](#) of length 16.

**799** is the smallest number whose sum of digits is [composite](#) and whose sum of digits [cubed](#) is [prime](#).

**800** = 2222 in base 7.

**801** =  $(7! + 8! + 9! + 10!) / (7 \times 8 \times 9 \times 10)$ .

**802** is the number of isomers of C<sub>13</sub>H<sub>28</sub>.

**803** is a value of n for which  $\sigma(n)$  is a [repdigit](#).

**804** is a value of n for which  $2\phi(n) = \phi(n+1)$ .

**805** is the number of possible positions in Checkers after 4 moves.

**806** is not the sum of a [square](#), a [cube](#), a 4<sup>th</sup> power, and a 5<sup>th</sup> power.

**807** ???

**808** is a [strobogrammatic number](#).

**809** is a member of the [Fibonacci](#)-type sequence starting with 1 and 5.

**810** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $2n-1$  and  $2n+1$ .

**811** is the smallest [prime factor](#) of  $24! + 1$ .

**812** is the number of triangles of any size contained in the triangle of side 14 on a triangular grid.

**813** are the first 3 digits of  $813^e$ .

**814** is a value of  $n$  so that  $n(n+5)$  is a [palindrome](#).

**815** is a [Lucas 3-step number](#).

**816** =  ${}_{18}C_3$ .

**817** ???

**818** is the number of ways to dissect a 12-gon using non-crossing diagonals into polygons with an even number of sides.

**819** is the smallest number so that it and its successor are both the product of 2 [primes](#) and the [square](#) of a [prime](#).

**820** = 1111 in base 9.

**821** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**822** is the number of [planar graphs](#) with 7 vertices.

**823** is a number that does not have any digits in common with its [cube](#).

**824** ???

**825** is the number of ways to legally add 2 sets of parentheses to a product of 9 variables.

**826** ???

**827** is the number of asymmetric [trees](#) with 11 vertices.

**828** ???

**829** is a value of  $n$  for which  [\$\pi\(n\)\$](#)  is the product of the digits of  $n$ .

**830** ???

**831** is the number of [monic polynomials](#) of [degree](#) 9 with [integer](#) coefficients whose complex roots are all in the unit disk.

**832** is the maximum number of pieces a [torus](#) can be cut into with 16 cuts.

**833** is a centered octahedral number.

**834** is the maximum number of regions a [cube](#) can be cut into with 17 cuts.

**835** is the 9<sup>th</sup> [Motzkin number](#).

**836** is a non-[palindrome](#) with a [palindromic square](#).

**837** ???

**838** ???

**839** has a base 5 representation that begins with its base 9 representation.

**840** is the smallest number divisible by 1 through 8.

**841** is a [square](#) that is also the sum of 2 consecutive [squares](#).

**842** is the ratio of [Fibonacci numbers](#).

**843** is the 14<sup>th</sup> [Lucas number](#).

**844** is the smallest number so that it and the next four numbers are [squareful](#) numbers.

**845** ???

**846** has the property that its [square](#) is the concatenation of two consecutive numbers.

**847** is the sum of the digits of the 14<sup>th</sup> [Mersenne prime](#).

**848** is the number of inequivalent binary [linear codes](#) of length 9.

**849** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**850** is the number of [trees](#) on 14 vertices with [diameter](#) 7.

**851** is the number of ordered [partitions](#) of 18 into distinct parts.

**852** is the number of [6-colorable connected graphs](#) with 7 vertices.

**853** is the number of [connected graphs](#) with 7 vertices.

**854** has the property that it and its [square](#) together use the digits 1-9 once.

**855** is the smallest number which is the sum of 5 consecutive [squares](#) or 2 consecutive [cubes](#).

**856** is a member of the [Fibonacci](#)-type sequence starting with 1 and 9.

**857** is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

**858** is the smallest [palindrome](#) with 4 different [prime factors](#).

**859** is the number of planar partitions of 11.

**860** ???

**861** =  $7 + 77 + 777$ .

**862** is a number whose sum of [divisors](#) is a  $4^{\text{th}}$  power.

**863** is a value of  $n$  so that  $n(n+6)$  is a [palindrome](#).

**864** is the number of [partitions](#) of 38 into distinct parts.

**865** ???

**866** is the number of sided [10-iamonds](#).

**867** is the number of [graphs](#) with 8 vertices that have [chromatic number](#) 5.

**868** has a [square root](#) whose decimal part starts with the digits 1-9 in some order.

**869** is the number of different resistances that can be created in a circuit of 9 equal resistors.

**870** is the sum of its digits and the [cube](#) of its digits.

**871** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 23 ways.

**872** is a value of  $n$  for which  $n! + 1$  is [prime](#).

**873** =  $1! + 2! + 3! + 4! + 5! + 6!$

**874** is the number of positive integer solutions to  $(1 + 1/a)(1 + 1/b)(1 + 1/c)(1 + 1/d)(1 + 1/e) = 2$ .

**875** is [3-automorphic](#).

**876** is a dodecagonal pyramidal number.

**877** is the 7<sup>th</sup> [Bell number](#).

**878** is the number of 3×3 sliding puzzle positions that require exactly 29 moves to solve starting

with the hole on a side.

**879** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**880** is the number of  $4 \times 4$  [magic squares](#).

**881** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**882** is the smallest number whose [square](#) begins with three 7's.

**883** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**884** is a number  $n$  whose 5<sup>th</sup> root has a decimal part that begins with the digits of  $n$ .

**885** is an enneagonal pyramidal number.

**886** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 19 ways.

**887** is a value of  $n$  for which  $\sigma(n)$  is a [repdigit](#).

**888** and the following 18 numbers are [composite](#).

**889** is a [Kaprekar constant](#) in base 2.

**890** ???

**891** is the number of unlabeled [distributive lattices](#) with 15 elements.

**892** is the smallest integer ratio of a 13-digit number to its product of digits.

**893** has a [square](#) whose digits each occur twice.

**894** has a base 5 representation that begins with its base 9 representation.

**895** is a [Woodall number](#).

**896** is not the sum of 4 non-zero [squares](#).

**897** is a [Cullen number](#).

**898** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**899** is the product of [twin primes](#).

**900** has a base 5 representation that begins with its base 9 representation.

**901** is the sum of the digits of the first 100 positive [integers](#).

**902** is a value of  $n$  so that  $n(n+7)$  is a [palindrome](#).

**903** is the 6<sup>th</sup> [super Catalan number](#)

**904** has a [cube](#) that is the sum of 3 positive [cubes](#).

**905** is the smallest [composite number](#) that is not the sum of a [prime](#) and a power of 2.

**906** is the number of [perfect graphs](#) with 7 vertices.

**907** is the largest  $n$  so that  $\mathbf{Q}(\sqrt{n})$  has [class number](#) 3.



908 ???

909 is a value of  $n$  that has no digits in common with  $2n$ ,  $3n$ ,  $4n$ ,  $5n$ ,  $6n$ ,  $7n$ ,  $8n$ , or  $9n$ .

910 is the [generalized Catalan number](#)  $C(11,4)$ .

911 is the American emergency number.

912 is a [Pentanacci number](#).

913 has exactly the same digits in 3 different bases.

914 is the number of [binary rooted trees](#) with 15 vertices.

915 ???

916 is a [strobogrammatic number](#).

917 is the only positive number known whose  $9^{\text{th}}$  power can be written as the sum of ten  $9^{\text{th}}$  powers.

918 is a number that does not have any digits in common with its [cube](#).

919 is the smallest number which is not the difference between [palindromes](#).

920 is a truncated cube number.

921 ???

**922** = 1234 in base 9.

**923** multiplied by its successor gives a number concatenated with itself.

**924** is the 6<sup>th</sup> [central binomial coefficient](#).

**925** is the number of [partitions](#) of 37 in which no part occurs only once.

**926** is the smallest number that can not be formed using the digits 1-6 at most once, with the operators +, −, ×, ÷, and ^.

**927** is the 13<sup>th</sup> [tribonacci number](#).

**928** ???

**929** is a [Proth prime](#).

**930** is the number of [even permutations](#) on 7 elements with no fixed points.

**931** ???

**932** ???

**933** is a house number.

**934** has a 5<sup>th</sup> root that starts 3.25252225....

**935** is a [Lucas-Carmichael number](#).

**936** is a [pentagonal pyramidal number](#).

**937** ???

**938** is the number of lines passing through at least 2 points of an 8×8 grid of points.

**939** has a [cube root](#) whose decimal part starts with the digits 1-9 in some order.

**940** is the maximum number of regions space can be divided into by 15 [spheres](#).

**941** is the smallest number which is the reverse of the sum of its proper substrings.

**942** is the smallest number whose [cube](#) contains five 8's.

**943** is a [Lucas 6-step number](#).

**944** ???

**945** is the smallest odd [abundant number](#).

**946** is a [hexagonal pyramidal number](#).

**947** ???

**948** is the number of symmetric [plane partitions](#) of 24.

**949** is the larger number in a [Ruth-Aaron pair](#).

**950** is the [generalized Catalan number](#)  $C(17,3)$ .

**951** is the number of functions from 8 unlabeled points to themselves.

**952** =  $9^3 + 5^3 + 2^3 + 9 \times 5 \times 2$ .

**953** is the largest [prime factor](#) of 54321.

**954** ???

**955** is the number of ways to to arrange the numbers 1-9 around a circle so that the sums of adjacent numbers are distinct.

**956** is the number of [multigraphs](#) with 16 vertices and 4 edges.

**957** is a value of  $n$  for which  $\sigma(n) = \sigma(n+1)$ .

**958** is the number of labeled [3-colorable graphs](#) with 5 vertices.

**959** is a [Carol number](#).

**960** is the sum of its digits and the [cube](#) of its digits.

**961** is a [square](#) whose digits can be rotated to give another [square](#).

**962** ???

**963** is a value of  $n$  for which  $\pi(n)$  is the product of the digits of  $n$ .

**964** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 12 moves to solve starting with the hole in the center.

965 ???

966 is the [Stirling number of the second kind](#)  $S(8,3)$ .

967 is the number of 6-digit [triangular numbers](#).

968 is an [Achilles number](#).

969 is a tetrahedral [palindrome](#).

970 is the number of [connected graphs](#) with 8 vertices and 17 edges.

971 ???

972 is an [Achilles number](#).

973 is the number of inequivalent asymmetric [Ferrers graphs](#) with 25 points.

974 is the number of [multigraphs](#) with 5 vertices and 10 edges.

975 is the number of [11-ominoes](#) that contain 1 hole.

976 has a [square](#) formed by inserting a block of digits inside itself.

977 is a [Stern prime](#).

978  $2^4 + 3^4 + 4^4 + 5^4$ .

979 is the sum of the first five  $4^{\text{th}}$  powers.

**980** is the number of [trees](#) on 23 vertices with [diameter](#) 4.

**981** is the smallest number that has 5 different [partitions](#) into 3 parts with the same product.

**982** is the number of [partitions](#) of 39 into distinct parts.

**983** is a [Wedderburn-Etherington number](#).

**984** = 8 + 88 + 888.

**985** is the 9<sup>th</sup> [Pell number](#).

**986** is a [strobogrammatic number](#).

**987** is the 16<sup>th</sup> [Fibonacci number](#).

**988** is the maximum number of regions a [cube](#) can be cut into with 18 cuts.

**989** is the smallest number so that it and its reverse are divisible by 43.

**990** is a [triangular number](#) that is the product of 3 consecutive [integers](#).

**991** is a permutable [prime](#).

**992** is the number of differential structures on the 11-dimensional [hypersphere](#).

**993** is the number of paraffins with 8 carbon atoms.

**994** is the smallest number with the property that its first 18 multiples contain the digit 9.

**995** has a [square](#) formed by inserting a block of digits inside itself.

**996** has a [square](#) formed by inserting a block of digits inside itself.

**997** has a [cube root](#) that starts 9.98998998....

**998** is the smallest number with the property that its first 55 multiples contain the digit 9.

**999** is a [Kaprekar number](#).

**1000** =  $10^3$ .

**1001** is the smallest [palindromic](#) product of 3 consecutive [primes](#).

**1002** is the number of [partitions](#) of 22.

**1003** has a base 2 representation that ends with its base 3 representation.

**1004** is a [Heptanacci number](#).

**1005** is a decagonal pyramidal number.

**1006** has a [cube](#) that is a concatenation of other [cubes](#).

**1007** is the maximum value of  $n$  so that there exist 8 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 6 stamps.

**1008** is the number of symmetric ways to fold a strip of 16 stamps.

**1009** is the [pseudosquare](#) modulo 7.

**1010** is the number of ways to tile a  $5 \times 12$  rectangle with the [pentominoes](#).

**1011** has a [square](#) that is formed by inserting three 2's into it.

**1012** has a [square](#) that is formed by inserting three 4's into it.

**1013** is the number of ways 10 people can line up so that only one person has a taller person in front of him.

**1014** is the smallest number that can be written in 7 ways as the sum of a number and the product of its non-zero digits.

**1015** is the number of [chiral invertible knots](#) with 12 [crossings](#).

**1016** is a [stella octangula number](#).

**1017** is the smallest number whose [square](#) contains 7 different digits.

**1018** is the number of [isoedral 8-hexes](#).

**1019** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**1020** is the number of ways to place 2 non-attacking kings on a  $7 \times 7$  chessboard.

**1021** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**1022** is a [Friedman number](#).



**1023** is the smallest number with 4 different digits.

**1024** is the smallest number with 11 [divisors](#).

**1025** is the smallest number that can be written as the sum of a [square](#) and a [cube](#) in 4 ways.

**1026** is the number of subsets of the 22<sup>nd</sup> [roots of unity](#) that add to 1.

**1027** is the sum of the [squares](#) of the first 8 [primes](#).

**1028** only requires the digits 0-9 to be written in bases 2-18.

**1029** is the smallest order for which there are 19 [groups](#).

**1031** is the length of the largest [repunit](#) that is known to be [prime](#).

**1032** is the smallest number that can be written as the sum of a [cube](#) and a 5<sup>th</sup> power in more than one way.

$$\mathbf{1033} = 8^1 + 8^0 + 8^3 + 8^3.$$

**1035** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

$$\mathbf{1036} = 4444 \text{ in base } 6.$$

**1037** is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

**1038** is the number of ways to stack 29 pennies in contiguous rows so that each penny lies on

the table or on two pennies.

**1039** is the number of different resistances that can be formed by nine or fewer 1-ohm resistors in series or parallel.

**1040** is the number of the standard IRS tax form.

**1041** does not occur in its [factorial](#) in base 2.

**1042** has the property that if each digit is replaced by its [cube](#), the resulting number is a [cube](#).

**1043** has a 5<sup>th</sup> power that contains only digits 4 and smaller.

**1044** is the number of [graphs](#) with 7 vertices.

**1045** is an octagonal pyramidal number.

**1046** is the smallest number whose [cube](#) contains 4 consecutive 4's.

**1049** is an Eisenstein-Mersenne prime.

**1050** is the [Stirling number of the second kind](#)  $S(8,5)$ .

**1051** is the smallest value of  $n$  for which  [\$\pi\(8n\)\$](#)  =  $n$ .

**1052** has the property that placing the last digit first gives 1 more than twice it.

**1053** divides the sum of the digits of  $2^{1053} \times 1053!$ .

**1054** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**1055** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 10 stamps.

**1056** is the area of the smallest non-[square](#) rectangle that can be tiled with [integer](#)-sided [squares](#).

**1057** is the number of [idempotent](#) functions from a set of 6 elements into itself.

**1060** is the sum of the [primes](#) less than 100.

**1061** is the smallest [emirp](#) which is a different [emirp](#) when viewed upside down.

**1063** is not the sum of a [square](#), a [cube](#), a 4<sup>th</sup> power, and a 5<sup>th</sup> power.

**1066** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**1067** has exactly the same digits in 3 different bases.

**1069** is a [prime](#) that remains [prime](#) when preceded and followed by one, two, three, or four 3's.

**1071** is the sum of 3 consecutive [cubes](#).

**1072** is the smallest number that can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**1075** is the number of squares of functions from a set of 5 elements to itself.

**1076** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**1077** is a value of  $n$  for which  $n!!! + 1$  is [prime](#).

**1078** is the number of [lattices](#) on 9 unlabeled nodes.

**1079** is the smallest number  $n$  where either it or its neighbors are divisible by the numbers from 1 to 15.

**1080** is the smallest number with 29 [composite divisors](#).

**1081** is a [triangular number](#) that is the product of two [primes](#).

**1084** is the smallest number whose English name contains all five vowels in order.

**1086** is the number of [13-hexes](#) with reflectional symmetry.

**1087** is a [Kynea prime](#).

**1088** has a sum of digits equal to its largest [prime factor](#).

**1089** is one ninth of its reverse.

**1092** is the order of a [non-cyclic simple group](#).

**1093** is the smallest [Wieferich prime](#).

**1094** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 14 stamps.

**1095** is the number of vertices in a [Sierpinski triangle](#) of order 6.

**1096** is the number of subsets of  $\{1,2,3,\dots,14\}$  that have a sum divisible by 15.

**1097** is the closest [integer](#) to  $e^7$ .

**1098** =  $11 + 0 + 999 + 88$ .

**1099** =  $1 + 0 + 999 + 99$ .

**1100** has a base 3 representation that ends with 1100.

**1101** has a base 2 representation that ends with 1101.

**1102** is the number of [connected graphs](#) with 10 vertices and 36 edges.

**1103** is the number of [graphs](#) with 9 vertices and 8 edges.

**1104** is a [Keith number](#).

**1105** is the smallest number that can be written as the sum of 2 [squares](#) in 4 ways.

**1107** is the 8<sup>th</sup> [central trinomial coefficient](#).

**1109** is the only 4 digit number whose 2-digit substrings are consecutive.

**1110** is the sum of all numbers with digit sum 3 with 3 or fewer digits.

**1111** is a [repdigit](#).

**1112** has a base 3 representation that begins with 1112.

**1113** is the number of [partitions](#) of 40 into distinct parts.

1114 =  $1^2 + 2^3 + 3^4 + 4^5$ .

1115 is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

1116 is the number of [8-abolos](#).

1117, when followed by any of its digits, is [prime](#).

1118 is the number of [graphs](#) with 9 vertices that have [chromatic number](#) 2.

1119 is the number of [bipartite graphs](#) with 9 vertices.

1120 =  $(1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8) / (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)$ .

1121 is the smallest number that can not be written using 12 copies of 12 and the operations +, −, ×, and ÷.

1122 =  $33C_1 + 33C_1 + 33C_2 + 33C_2$ .

1123 has digits which start the [Fibonacci sequence](#).

1124 is a [Leyland number](#).

1125 is a hendecagonal pyramidal number.

1127 has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

1128 is an icosahedral number.

**1130** is a [Perrin number](#).

**1131** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**1132** is the number of [3-valent trees](#) with 15 vertices.

**1134** is the number of [permutations](#) of 9 items that fix 5 elements.

**1135** is the number of ways to color the vertices of a triangle with 15 colors, up to rotation.

**1137** is the maximum value of  $n$  so that there exist 7 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 7 stamps.

**1139** has the property that placing the last digit first gives 1 more than 8 times it.

**1140** is the only number less than 10 million that can be written in 2 different ways as the sum of 3 or more consecutive numbers raised to consecutive powers.

**1141** is the smallest number whose  $6^{\text{th}}$  power can be written as the sum of seven  $6^{\text{th}}$  powers.

**1142** is the number of ways to place a non-attacking white and black pawn on a  $7 \times 7$  chessboard.

**1144** is the number of [non-invertible knots](#) with 12 [crossings](#).

**1146** divides the sum of the digits of  $2^{1146} \times 1146!$ .

**1147** is the product of two consecutive [primes](#).

**1148** is the number of ways to fold a strip of 9 stamps.

**1150** is the number of [11-iamonds](#) without bilateral symmetry.

**1151** is the smallest number that can be written as the sum of consecutive [primes](#) in exactly 4 ways.

**1152** is a [highly totient number](#).

**1153** is the smallest number with the property that its first 3 multiples contain the digit 3.

**1154** is the 8<sup>th</sup> [Pell-Lucas number](#).

**1155** is the [Stirling number of the second kind](#)  $S(11,9)$ .

**1156** is a [square](#) whose digits are non-decreasing.

**1157** is the number of [anisohedral 15-ominoes](#).

**1158** is the maximum number of pieces a [torus](#) can be cut into with 18 cuts.

**1159** is a centered octahedral number.

**1160** is the maximum number of regions a [cube](#) can be cut into with 19 cuts.

**1161** is the number of [11-iamonds](#) without holes.

**1165** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 12 dimensional [hypercube](#).



**1166** is a [heptagonal pyramidal number](#).

**1167** is the smallest number whose  $8^{\text{th}}$  power can be written as the sum of nine  $8^{\text{th}}$  powers.

**1168** is the number of binary [cube-free words](#) of length 16.

**1169** is the number of [connected graphs](#) with 8 vertices and 12 edges.

**1170** = 2222 in base 8.

**1171** has a  $4^{\text{th}}$  power containing only 4 different digits.

**1172** is the number of subsets of  $\{1,2,3,\dots,14\}$  that have a sum divisible by 14.

**1177** is a number whose sum of [divisors](#) is a  $4^{\text{th}}$  power.

**1179** is the number of different [permanents](#) of binary  $7\times 7$  matrices.

**1182** is the number of necklaces (that can't be turned over) possible with 14 beads, each being one of 2 colors.

**1183** is the smallest number with the property that its first 4 multiples contain the digit 3.

**1184** is an [amicable number](#).

**1185** =  $11 + 1111 + 8 + 55$ .

**1186** is the number of [11-iamonds](#).

**1187** = 111 + 111 + 888 + 77.

**1188** is the number of triangles of any size contained in the triangle of side 16 on a triangular grid.

**1189** is the [square root](#) of a [triangular number](#).

**1191** is the number of symmetric [plane partitions](#) of 25.

**1192** is the number of [12-diamonds](#) that do not tile the plane.

**1193** and its reverse are [prime](#), even if we append or prepend a 3 or 9.

**1196** is the number of lines through exactly 2 points of a 9×9 grid of points.

**1197** is the smallest number that contains as substrings the maximal [prime powers](#) that divide it.

**1200** = 3333 in base 7.

**1201** has a [square](#) that is formed by inserting three 4's into it.

**1202** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**1203** is the smallest number  $n$  for which the concatenation of  $n$ ,  $(n+1)$ , ...  $(n+34)$  is [prime](#).

**1204** is the magic constant for a 7×7×7 [magic cube](#).

**1205** is the number of [fullerenes](#) with 58 carbon atoms.

**1206** is a [Friedman number](#).

**1207** is the product of two [primes](#) which are reverses of each other.

**1209** =  $1 \times 3 \times 13 \times 31$ .

**1210** is an [amicable number](#).

**1211** is the smallest number that ends an arithmetic progression of 9 numbers with the same [prime signature](#).

**1212** is the number of inequivalent asymmetric [Ferrers graphs](#) with 26 points.

**1213** is the number of different [degree sequences](#) for graphs with 8 vertices.

**1214** is a number whose product of digits is equal to its sum of digits.

**1215** is the smallest number  $n$  where  $n$  and  $n+1$  are both products of 6 or more [primes](#).

**1217** is a [Proth prime](#).

**1219** is a number whose sum of [divisors](#) is a  $4^{\text{th}}$  power.

**1220** is the number of labeled mappings from 5 points to themselves with exactly 2 cycles.

**1221** =  $1 \times 11 \times 111$ .

**1222** is a [hexagonal pyramidal number](#).

**1223** is the smallest number with [complexity](#) 24.

**1225** is the smallest number that can be written as the sum of 4 [cubes](#) in 3 ways.

**1227** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 27 ways.

**1228** is a structured pentagonal hexacontahedral number.

**1229** is the number of [primes](#) less than 10000.

**1230** is the number of [square-free graphs](#) with 9 vertices.

**1231** has the property that  $1^7 + 2^7 + 3^7 + 1^7 = 1231_8$ .

**1232** =  $(7 \times 8 \times 9 \times 10 \times 11) / (7 + 8 + 9 + 10 + 11)$  .

**1233** =  $12^2 + 33^2$ .

**1234** is the smallest 4-digit number with increasing digits.

**1236** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{26}$ .

**1237** is the smallest [prime](#) that contains exactly 5 smaller [primes](#) as substrings.

**1238** is the number of [rooted ternary trees](#) with 11 vertices.

**1239** is a value of  $n$  for which  $n^8$ ,  $n^9$ ,  $n^{10}$ , and  $n^{11}$  have the same digit sum.

**1240** is the number of symmetric arrangements of 6 non-attacking [queens](#) on a 6×6 chessboard.

**1241** is a [centered cube number](#).

**1243** is the number of essentially different ways to dissect a 18-gon into 8 [quadrilaterals](#).

**1245** is a dodecagonal pyramidal number.

**1246** is the number of [partitions](#) of 38 in which no part occurs only once.

**1248** is the smallest number with the property that its first 6 multiples contain the digit 4.

**1249** is the number of [simplicial polyhedra](#) with 11 vertices.

**1250** has a reciprocal that terminates in base 10.

**1252** is the number of ways to tile a  $4 \times 24$  rectangle with  $4 \times 1$  rectangles.

**1253** is a value of  $n$  for which  $\sigma(n+1) = 2\sigma(n)$ .

**1254** is the number of [13-iamonds](#) whose adjacency graph has a cycle.

**1255** is a [Friedman number](#).

**1257** is a value of  $n$  for which  $\varphi(\sigma(n)) = \varphi(n)$ .

**1258** is the number of [commutative](#) asymmetric [semigroups](#) of order 6.

**1260** is the smallest number with 36 [divisors](#).

**1261** is a [Hexanacci](#)-like number starting from 1, 1, 1, 1, 1, and 1.

**1262** is the number of subsets of  $\{1,2,3,\dots,14\}$  that have a sum divisible by 13.

**1265** has a 5<sup>th</sup> power that contains the same digits as  $164^7$ .

**1271** has a 6<sup>th</sup> power whose last few digits are ...21211121.

**1275** is the smallest number so that it and its neighbors are products of two [primes](#) and the [square](#) of a [prime](#).

**1276** =  $1111 + 22 + 77 + 66$ .

**1278** has a [square root](#) whose decimal part starts with the digits 1-9 in some order.

**1279** is the exponent of a [Mersenne prime](#).

**1280** is the number of tilted rectangles with vertices in a  $10\times 10$  grid.

**1281** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**1283** is the number of ways to divide a  $8\times 8$  grid of points into two sets using a straight line.

**1285** is the number of [9-ominoes](#).

**1287** =  $_{13}\text{C}_5$ .

**1288** is the number of possible positions in Othello after 2.5 moves.

**1289** is a [truncated octahedral number](#).

**1290** is the number of [connected graphs](#) with 8 vertices and 16 edges.

**1291** is the number of possible rows in a 16×16 crossword puzzle.

**1292** is a factor of the sum of the digits of  $1292^{1292}$ .

**1293** is a structured truncated tetrahedral number.

**1294** is the number of 4 dimensional [polytopes](#) with 8 vertices.

**1295** = 5555 in base 6.

**1296** is a [Friedman number](#).

**1297** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**1298** has a base 3 representation that ends with its base 6 representation.

**1299** are the first 4 digits of  $8^{1299}$ .

**1300** is the sum of the first four  $5^{\text{th}}$  powers.

**1301** is the number of [trees](#) with 13 vertices.

**1302** is the number of [trees](#) on 17 vertices with [diameter](#) 5.

**1303** is the number of [multigraphs](#) with 7 vertices and 8 edges.

**1304** =  $1304_6 + 1304_9$ .

**1305** is the number of [graphs](#) with 11 vertices and 9 edges.

**1306** =  $1^1 + 3^2 + 0^3 + 6^4$ .

**1307** is a number  $n$  for which  $n^2+1$  is 7 times another square.

**1308** is the smallest value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [prime factors](#).

**1309** is a member of the [Fibonacci](#)-type sequence starting with 1 and 5.

**1310** is the smallest number so that it and its neighbors are products of three distinct [primes](#).

**1311** is the [trinomial coefficient](#)  $T(19,16)$ .

**1314** divides the sum of the digits of  $1314!$ .

**1318** is the [rectilinear crossing number](#) of [complete graph](#)  $K_{19}$

**1320** =  $_{12}P_3$ .

**1323** is an [Achilles number](#).

**1324** is the [Entringer number](#)  $E(7,5)$ .

**1325** is a [Markov number](#).

**1327** is the smallest [prime](#) for which the closest 6 [primes](#) are all smaller.



**1328** and the following 32 numbers are [composite](#).

**1330** =  ${}_{21}\text{C}_3$ .

**1331** is a [cube](#) containing only odd digits.

**1332** has a base 2 representation that begins and ends with its base 6 representation.

**1333** has a base 2 representation that ends with its base 6 representation.

**1334** is a value of  $n$  for which  $\sigma(n) = \sigma(n+1)$ .

**1337** spells Leet in Leet.

**1338** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**1340** has a [square](#) with a digit sum larger than its 5<sup>th</sup> power.

**1341** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**1342** is the smallest number that is 15 away from a [prime](#).

**1343** is the smallest number that is 16 away from a [prime](#).

**1344** is the order of a [perfect group](#).

**1345** is the number of [permutations](#) of 8 elements that have 5<sup>th</sup> power equal to the [identity permutation](#).

**1347** is the concatenation of the first 4 [Lucas numbers](#).

**1348** is the number of ways to stack 22 pennies in contiguous rows so that each penny lies on the table or on two pennies.

**1349** is the maximum number of pieces a [torus](#) can be cut into with 19 cuts.

**1351** has the property that  $e^{1351}$  is within .0009 of an [integer](#).

**1352** is an hexagonal prism number.

**1353** is the ratio of [Fibonacci numbers](#).

**1354** has a 5<sup>th</sup> power that is closer to a [cube](#) than a [square](#).

**1356** is a truncated square pyramid number.

**1357** has digits in [arithmetic sequence](#).

**1358** is a value of n for which  $n!!!! + 1$  is [prime](#).

**1360** is the number of ways to place 3 non-attacking [knights](#) on a 5×5 chessboard.

**1361** is the index of a [prime Lucas number](#).

**1362** is the smallest number that has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

**1363** is a value of n for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**1364** is the 15<sup>th</sup> [Lucas number](#).

**1365** =  ${}_{15}\text{C}_4$ .

**1366** is the number of ways to place 28 points on a 14×14 grid so that [no 3 points are on a line](#).

**1367** is the number of [anisohedral 18-iamonds](#).

**1368** is the number of ways to fold a 3×3 rectangle of stamps.

**1369** is a [square](#) whose digits are non-decreasing.

**1370** =  $1^2 + 37^2 + 0^2$ .

**1371** =  $1^2 + 37^2 + 1^2$ .

**1372** is the smallest number that can not be written as the sum of 3 volumes of rectangular boxes with [integer](#) dimensions less than 10.

**1373** is the number of digits of the 17<sup>th</sup> [perfect number](#).

**1375** is a decagonal pyramidal number.

**1376** is the smallest number with the property that it and its neighbors are not [cubefree](#).

**1377** is the number of interior intersections when all the diagonals of a [regular](#) 16-gon are drawn.

**1378** is the number of [symmetric idempotent](#) 6×6 matrices over [GF\(2\)](#).

**1379** is the magic constant of a 24×24 magic square.

**1380** is the number of intersections when all the diagonals of a [regular](#) 15-gon are drawn.

**1381** is the number of [anisohedral 17-ominoes](#).

**1383** is the number of [anisohedral 13-hexes](#).

**1384** has the same digits as the 1384<sup>th</sup> [prime](#).

**1385** is the 4<sup>th</sup> [secant number](#).

**1386** =  $1 + 3^4 + 8 + 6^4$ .

**1387** divides the sum of the binary digits of 1387!.

**1389** is the number of unit [interval graphs](#) with 9 vertices.

**1390** is the smallest number in base 6 to have 5 different digits.

**1391** is the number of squares in a 10×10 grid of squares with diagonals drawn.

**1392** is the number of [ternary square-free words](#) of length 18.

**1393** is an [NSW number](#).

**1394** is the maximum number of regions space can be divided into by 17 [spheres](#).

**1395** is a [vampire number](#).

**1396** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 31 ways.

**1399** is the number of subsets of  $\{1,2,3,\dots,13\}$  that have an [integer](#) average.

**1400** is the number of different arrangements of 4 non-attacking [queens](#) on a  $4\times 10$  chessboard.

**1405** is the sum of consecutive [squares](#) in 2 ways.

**1406** has a 4<sup>th</sup> root that starts 6.12345....

**1408** is the number of [symmetric](#)  $3\times 3$  matrices in base 4 with [determinant](#) 0.

**1409** is the only positive number known whose 8<sup>th</sup> power can be written as the sum of eight 8<sup>th</sup> powers.

**1410** is the number of [Ore graphs](#) with 9 vertices.

**1411** is the number of [quasi-groups](#) of order 5.

**1412** has a [cube](#) whose digits occur with the same frequency.

**1413** is the smallest number that can not be formed using the digits 0-7 at most once, together with the symbols  $+$   $-$   $\times$  and  $\div$ .

**1414** is the smallest number whose [square](#) contains 3 consecutive 9's.

**1415** is a centered icosahedral number.

**1416** is the number of connected planar maps with 6 edges.

**1418** is the number of (not necessarily distinct) sets of [Egyptian fractions](#) that sum to 1 with smallest fraction  $1/18$ .

**1419** is a [Zeisel number](#).

**1420** +  $\sigma(1420) = 4444$ .

**1421** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**1422** is the number of ways to stack 27 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**1423** is the number of digits in the 3<sup>rd</sup> [Cullen prime](#).

**1426** is the number of [partitions](#) of 42 into distinct parts.

**1427** is the number of ways to write 23 as the ordered sum of positive squares.

**1428** is the number of ways a  $6 \times 1$  rectangle can be surrounded by  $6 \times 1$  rectangles.

**1429** is the smallest number whose [square](#) has the first 3 digits the same as the next 3 digits.

**1430** is the 8<sup>th</sup> [Catalan number](#).

**1432** is a [Padovan number](#).

**1434** is a number whose sum of [squares](#) of the [divisors](#) is a [square](#).

**1435** is a [vampire number](#).

**1437** is the smallest number that can not be formed using the digit 1 at most 19 times, together with the symbols +, × and ^.

**1438** is the smallest number with [complexity](#) 25.

**1439** is the smallest number with [complexity](#) 26.

**1440** =  $2! \times 3! \times 5!$ .

**1441** is a [palindrome](#) in base 6 and in base 10.

**1443** is a number n for which the sum of the first n [composite numbers](#) is a [palindrome](#).

**1444** is a [square](#) whose digits are non-decreasing.

**1445** divides the sum of the binary digits of 1445!.

**1446** is the number of [graphs](#) with 9 vertices and 5 edges.

**1448** is the number of [8-hexes](#).

**1449** is a [stella octangula number](#).

**1450** is the total number of [labeled graphs](#) on 0-5 vertices.

**1451** is the 5<sup>th</sup> central heptanomial coefficient.

**1452** is a value of n so that  $n(n+4)$  is a [palindrome](#).

**1453** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**1454** =  $11 + 444 + 555 + 444$ .

**1455** is the number of [subgroups](#) of the [symmetric group](#) on 6 symbols.

**1456** is the number of regions formed when all diagonals are drawn in a [regular](#) 15-gon.

**1457** is a number that does not have any digits in common with its [cube](#).

**1458** is the maximum [determinant](#) of a binary  $11 \times 11$  matrix.

**1459** is the sum of the [cubes](#) of the digits of the sum of the [cubes](#) of its digits.

**1460** is a value of  $n$  for which  $n^2$  and  $n^3$  use the same digits.

**1464** = 1111 in base 11.

**1465** has a [square](#) that is formed by inserting three 2's into it.

**1467** has the property that  $e^{\pi\sqrt{1467}}$  is within  $10^{-8}$  of an [integer](#).

**1468** is the smallest number whose  $6^{\text{th}}$  power has 20 digits.

**1469** is the number of ways to play the first 4 moves in Checkers.

**1470** is a [pentagonal pyramidal number](#).

**1471** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of



15<sup>th</sup> [roots of unity](#).

1474 is a member of the [Fibonacci](#)-type sequence starting with 2 and 9.

1475 is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 11 stamps.

1476 is the number of [graphs](#) with 9 edges.

1477 is a value of  $n$  for which  $n! + 1$  is [prime](#).

1479 is the number of planar partitions of 12.

1480 is the number of asymmetric [trees](#) with 19 vertices.

1481 is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

1485 is the number of 3-colored [rooted trees](#) with 5 vertices.

1486 is the number of different [score sequences](#) of an 10-team round robin tournament.

1490 is the 14<sup>th</sup> [Tetranacci number](#).

1491 has an 8<sup>th</sup> power whose first few digits are 24424244....

1492 is the number of lines passing through at least 2 points of an  $9 \times 9$  grid of points.

1493 is the largest known [Stern prime](#).

1494 is the sum of its [proper divisors](#) that contain the digit 4.

**1496** is the sum of the first 16 [squares](#).

**1497** is a [Perrin number](#).

**1498** is the number of inequivalent asymmetric [Ferrers graphs](#) with 27 points.

**1499** is a [prime](#) that remains [prime](#) if any digit is deleted.

**1500** =  $(5+1) \times (5+5) \times (5+0) \times (5+0)$ .

**1501** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 33 ways.

**1503** is a [Friedman number](#).

**1504** is the number of [anisohedral 21-diamonds](#).

**1505** is the number of necklaces possible with 6 beads, each being one of 5 colors.

**1506** is the sum of its [proper divisors](#) that contain the digit 5.

**1507** is the number of [partitions](#) of 32 that do not contain 1 as a part.

**1508** is a [heptagonal pyramidal number](#).

**1512** is the number of inequivalent [Ferrers graphs](#) with 27 points.

**1514** is a number whose [square](#) and [cube](#) use different digits.

**1515** is the number of [trees](#) on 15 vertices with [diameter](#) 6.

**1517** is the product of two consecutive [primes](#).

**1518** is the sum of its [proper divisors](#) that contain the digit 5.

**1520** is the smaller number in a [Ruth-Aaron pair](#).

**1521** is the smallest number that can be written as the sum of 4 distinct [cubes](#) in 3 ways.

**1522** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**1525** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**1526** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{27}$ .

**1529** is the number of (not necessarily distinct) sets of [Egyptian fractions](#) that sum to 1 with smallest fraction  $1/22$ .

**1530** is a [vampire number](#).

**1531** appears inside its 4<sup>th</sup> power.

**1532** is the number of series-parallel networks with 9 unlabeled edges.

**1533** is a [Kaprekar constant](#) in base 2.

**1534** = 4321 in base 7.

**1535** is a [Thabit number](#).

**1536** is not the sum of 4 non-zero [squares](#).

**1537** has the property that dropping its first and last digits gives its largest [prime factor](#).

**1538** does not occur in its [factorial](#) in base 2.

**1540** is a [tetrahedral triangular number](#).

**1541** is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

**1542** are the first 4 digits of  $2^{1542}$ .

**1543** = 1111 + 55 + 44 + 333.

**1544** is the number of [connected 4-regular graphs](#) with 12 vertices.

**1545** is a cubic star number.

**1546** is the number of  $5 \times 5$  binary matrices with at most one 1 in each row and column.

**1547** is a [hexagonal pyramidal number](#).

**1549** is the smallest multi-digit number that is not the sum of a [prime](#) and a non-trivial power.

**1551** is the number of [trees](#) on 25 vertices with [diameter](#) 4.

**1552** has a sum of [prime factors](#) that is equal to the sum of the [prime factors](#) of the two preceding numbers.

**1553** is the number of polygons formed by 9 points on a circle, if adjacent points can not be joined.

**1554** is the [trinomial coefficient](#)  $T(9,3)$ .

**1555** is the largest  $n$  so that  $\mathbf{Q}(\sqrt{n})$  has [class number](#) 4.

**1556** is the sum of the [squares](#) of the first 9 [primes](#).

**1557** has a [square](#) where the first 6 digits alternate.

**1559** is the smallest [prime](#)  $p$  with 16 consecutive [quadratic residues](#) mod  $p$ .

**1560** is the maximum number of pieces a [torus](#) can be cut into with 20 cuts.

**1561** is the number of [series-reduced trees](#) with 19 vertices.

**1562** = 22222 in base 5.

**1563** is the smallest number with the property that its first 4 multiples contain the digit 6.

**1568** is the smallest [Rhonda number](#).

**1569** is the number of labeled mappings from 5 points to themselves with exactly 1 cycles.

**1571** is the smallest number that can not be formed using the digit 1 at most 23 times, together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**1573** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman](#)

[numerals](#).

**1574** is the closest [integer](#) to  $15^e$ .

**1575** is the number of [partitions](#) of 24.

**1577** divides  $1^1 + 2^2 + 3^3 + \cdots + 1577^{1577}$ .

**1578** is the number of [Hamiltonian paths](#) of a  $3 \times 8$  rectangle [graph](#).

**1579** is the smallest [prime](#) that remains [prime](#) when preceded and followed by one, two, three, or four 9's.

**1581** is the smallest number whose  $8^{\text{th}}$  power contains exactly the same digits as another  $8^{\text{th}}$  power.

**1582** is a value of  $n$  so that  $n(n+4)$  is a [palindrome](#).

**1584** has a base 3 representation that ends with its base 6 representation.

**1585** has a base 3 representation that ends with its base 6 representation.

**1586** has a base 3 representation that ends with its base 6 representation.

**1587** is a number that does not have any digits in common with its [cube](#).

**1589** is the starting location of 7777 in the decimal expansion of  $\pi$ .

**1590** is the denominator of the  $52^{\text{nd}}$  [Bernoulli number](#).

**1591** is the sum of the first 13 numbers that have digit sum 13.

**1592** is a number that does not have any digits in common with its [cube](#).

**1593** has the property that dropping its first and last digits gives its largest [prime factor](#).

**1595** is the smallest quasi-Carmichael number in base 2.

**1596** is the sum of the first 15 [Fibonacci numbers](#).

**1597** is the 17<sup>th</sup> [Fibonacci number](#).

**1600** = 4444 in base 7.

**1601** is the number of [forests](#) with 12 vertices.

**1605** is the number of 7-octs.

**1606** is the number of [strongly connected digraphs](#) with 4 vertices.

**1608** is the number of [connected regular graphs](#) with 15 vertices whose [girth](#) is at least 4.

**1609** is the smallest number whose [square](#) contains 4 consecutive 8's.

**1610** is the number of [partitions](#) of 43 into distinct parts.

**1613** is the index of a [prime Euclid number](#).

**1614** is the number of arrangements of 5 non-attacking [queens](#) on a 9×5 chessboard.

**1616** is the number of [regular graphs](#) with 15 vertices whose [girth](#) is at least 4.

**1617** is the maximum value of  $n$  so that there exist 6 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 9 stamps.

**1618** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**1620** is a highly abundant number.

**1621** is a [prime](#) that remains [prime](#) when preceded and followed by one, two, three, or four 3's.

**1624** is the [Stirling number of the first kind](#)  $s(7,3)$ .

**1625** is the number of [circular permutations](#) of a set with 8 elements with no element being mapped to its successor.

**1626** is the number of binary [partitions](#) of 31.

**1627** is the smallest [prime](#) so that it and the next 2 [primes](#) all end in 7.

**1629** is an icosahedral number.

**1630** is the number of [14-ominoes](#) with a line of symmetry.

**1631** is the number of ordered subsets of  $\{1,2,3,4,5\}$  than contain the number 1.

**1632** is the smallest number with the property that its first 5 multiples contain the digit 6.

**1633** is a number whose [square](#) and [cube](#) use different digits.



**1634** is a [narcissistic number](#).

**1635** has a 5<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**1636** appears inside its 4<sup>th</sup> power.

**1637** is the number of [graphs](#) with 9 vertices and 10 edges.

**1638** is a [harmonic divisor number](#).

**1639** is the number of [binary rooted trees](#) with 16 vertices.

**1640** = 2222 in base 9.

**1641** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**1643** =  $31 \times 53 = 3153_8$ .

**1648** is a [betrothed number](#).

**1649** is a [Leyland number](#).

**1650** is the number of connected [partial orders](#) on 7 unlabeled elements.

**1651** is the [trinomial coefficient](#)  $T(13,9)$ .

**1652** is a member of the [Fibonacci](#)-type sequence starting with 4 and 9.

**1657** is a [Cuban prime](#).

**1659** is a structured truncated octahedral number.

**1661** is a centered dodecahedral number.

**1663** is the number of [partitions](#) of 41 in which no part occurs only once.

**1664** is a value of  $n$  so that  $n(n+9)$  is a [palindrome](#).

**1665** is the number of triangles of any size contained in the triangle of side 18 on a triangular grid.

**1666** is the sum of the Roman numerals.

**1667** +  $\phi(1667) = 3333$ .

**1668** is the maximum number of regions space can be divided into by 18 [spheres](#).

**1669** is the smallest number whose  $9^{\text{th}}$  power has 29 digits.

**1670** has a  $6^{\text{th}}$  root that starts 3.44444....

**1671** divides the sum of the first 681 [composite numbers](#).

**1673** is a number with the property that the [root-mean-square](#) of its [divisors](#) is an integer.

**1674** is the smallest  $n$  for which  $\sum_{k \leq n} 1/k \geq 8$ .

**1675** has the property that dropping its first and last digits gives its largest [prime factor](#).

**1676** =  $1^1 + 6^2 + 7^3 + 6^4$ .

**1679** is the smallest multiple of 23 whose digits add to 23.

**1680** is the smallest number with 40 [divisors](#).

**1681** is a [square](#) and each of its two 2-digit parts is [square](#).

**1682** is the number of [monoids](#) of order 7 with 7 [idempotents](#).

**1683** is a [Delannoy number](#).

**1684** is the number of [multigraphs](#) with 6 vertices and 9 edges.

**1688** is a [truncated tetrahedral number](#).

**1689** is the smallest [composite number](#) all of whose [proper divisors](#) contain the digit 9.

**1690** is the number of ordered sequences of coins totaling 27 cents.

**1691** is the number of [multigraphs](#) with 5 vertices and 11 edges.

**1692** has a [square](#) with the first 3 digits the same as the next 3 digits.

**1694** has a [cube](#) whose digits occur with the same frequency.

**1695** is a [rhombic dodecahedral number](#).

**1696** is the number of regions formed when all diagonals are drawn in a [regular](#) 16-gon.

**1697** is the smallest [prime factor](#) of  $26! + 1$ .

**1700** is the [generalized Catalan number](#)  $C(13,4)$ .

**1701** is the [Stirling number of the second kind](#)  $S(8,4)$ .

**1702** has a [square](#) that contains the same digits as  $13^6$ .

**1705** is the smallest quasi-Carmichael number in base 4.

**1706** =  $5 \times 6 \times 7 \times 8 + 5 + 6 + 7 + 8$ .

**1708** is the number of permutations  $s$  of  $\{1,2,3,4,5,6,7,8\}$  for which  $|s(i)-i| > 1$  for all  $i$ .

**1709** is the index of a [Wagstaff prime](#).

**1710** is the smallest non-[palindrome](#) where it and its reverse are divisible by 19.

**1711** is a [triangular number](#) that is the product of two [primes](#).

**1712** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of  $16^{\text{th}}$  [roots of unity](#).

**1713** is the number of [14-diamonds](#) with holes.

**1714** is the number of [graphs](#) with 9 vertices and 7 cycles.

**1715** =  $1 \times 7^3 \times 1 \times 5$ .

**1716** =  $13C_6$ .

**1722** is a [Giuga number](#).

**1724** is the number of [matroids](#) on 8 points.

**1725** is a structured deltoidal hexacontahedral number.

**1727** and its reverse are both differences of positive [cubes](#).

**1728** =  $12^3$ .

**1729** is a [taxicab number](#).

**1730** is the sum of consecutive [squares](#) in 2 ways.

**1731** is the sum of the [squares](#) of 3 consecutive [primes](#).

**1732** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 34 ways.

**1733** is the smallest [prime](#) that contains exactly 6 smaller [primes](#) as substrings.

**1734** is the sum of its [proper divisors](#) that contain the digit 8.

**1736** is the number of ways to place 2 non-attacking [bishops](#) on a 8×8 chessboard.

**1737** is a value of  $n$  so that  $(n-1)^2 + n^2 + (n+1)^2$  is a [palindrome](#).

**1738** =  $6952 / 4$ , and this equation uses each digit 1-9 exactly once.

**1739** is a value of  $n$  for which  $n^8$ ,  $n^9$ ,  $n^{10}$ , and  $n^{11}$  have the same digit sum.

**1740** has a base 5 representation that begins with its base 9 representation.

**1741** is the smallest [prime](#) so that it and the next 5 [primes](#) are all equal to 1 (mod 6).

**1747** is a value of  $n$  for which  $n(n+2)$  is a [palindrome](#).

**1749** is the number of digits in the 4<sup>th</sup> [Cullen prime](#).

**1751** is the 6<sup>th</sup> central pentanomial coefficient.

**1753** is the largest [prime factor](#) of  $8! - 1$ .

**1755** = 3333 in base 8.

**1756** is the number of ways to stack 28 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**1757** is the smallest multi-digit number  $n$ , that when interpreted in base 17, gives a multiple of  $n$ .

**1759** is an Eisenstein-Mersenne prime.

**1763** is the product of [twin primes](#).

**1764** is the [Stirling number of the first kind](#)  $s(7,2)$ .

**1769** is the 4-digit string that appears latest in the decimal expansion of [e](#).

**1770** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 13 dimensional [hypercube](#).

**1771** is a tetrahedral [palindrome](#).

**1775** is a member of the [Fibonacci](#)-type sequence starting with 1 and 7.

**1778** is the largest number whose [square](#) has 5 digits.

**1779** is the smallest number whose  $4^{\text{th}}$  power has 13 digits.

**1780** is a structured truncated tetrahedral number.

**1782** is the largest number  $n$  known for which  $\sigma(n)$  is the square of the product of the distinct primes dividing  $n$ .

**1784** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**1785** is a [Kaprekar constant](#) in base 2.

**1786** has a [cube](#) that contains only digits 5 and larger.

**1787** is the number of different arrangements (up to rotation and reflection) of 12 non-attacking [queens](#) on a  $12 \times 12$  chessboard.

**1789** is the smallest number with the property that its first 4 multiples contain the digit 7.

**1792** is a [Friedman number](#).

**1793** is a [Pentanacci number](#).

**1794** has a base 5 representation that begins with its base 9 representation.

**1795** has a base 5 representation that begins with its base 9 representation.

**1798** is a value of  $n$  for which  $\varphi(\sigma(n)) = \varphi(n)$ .

**1799** is the sum of the [cubes](#) of 3 consecutive [primes](#).

**1800** is a [pentagonal pyramidal number](#).

**1801** is a [Cuban prime](#).

**1804** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 14 moves to solve starting with the hole on a side.

**1805** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**1806** is a [Schröder number](#).

**1807** is a member of [Sylvester's sequence](#).

**1812** is the number of [fullerenes](#) with 60 carbon atoms.

**1813** is the number of [trees](#) on 15 vertices with [diameter](#) 8.



**1815** has a 4<sup>th</sup> power in base 7 with no isolated digits.

**1816** is the number of [partitions](#) of 44 into distinct parts.

**1817** is the number of [polyominoes](#) with 8 or fewer squares.

**1818** evenly divides the sum of its rotations.

**1819** has a 7<sup>th</sup> power that contains the same digits as 322<sup>9</sup>.

**1820** = 16C<sub>4</sub>.

**1822** has a [cube](#) that contains only even digits.

**1823** has a [square](#) with the first 3 digits the same as the next 3 digits.

**1824** has a [cube](#) that contains only even digits.

**1825** is the smallest number whose [square](#) begins with three 3's.

**1826** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**1827** is a [vampire number](#).

**1828** is the 6<sup>th</sup> [meandric number](#) and the 11<sup>th</sup> [open meandric number](#).

**1830** is the number of [ternary square-free words](#) of length 19.

**1831** is the smallest [prime](#) that is followed by 15 [composite numbers](#).

**1834** is an [octahedral number](#).

**1835** is the number of Pyramorphix puzzle positions that require exactly 4 moves to solve.

**1836** has a 4<sup>th</sup> power whose product of digits is also a 4<sup>th</sup> power.

**1837** is a value of  $n$  for which  $2n$  and  $7n$  together use the digits 1-9 exactly once.

**1840** are the first 4 digits of  $1^1 + 2^2 + 3^3 + \cdots + 1840^{1840}$ .

**1842** is the number of [rooted trees](#) with 11 vertices.

**1843** has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

**1847** is the number of  $2 \times 2 \times 2$  [Rubik's cube](#) positions that require exactly 4 moves to solve.

**1848** is the smallest value of  $n$  for which  ${}_{2n}C_n$  is divisible by  $n^2$ .

**1849** is the smallest [composite number](#) all of whose [proper divisors](#) contain the digit 4.

**1850** =  $(10^3 + 10^4 + 10^5) / (3 \times 4 \times 5)$ .

**1851** is the number of inequivalent asymmetric [Ferrers graphs](#) with 28 points.

**1854** is the number of [derangements](#) of 7 items.

**1855** is the number of [permutations](#) of 7 items that fix 1 element.

**1858** is the number of isomers of  $C_{14}H_{30}$ .

**1860** is the number of ways to 12-color the faces of a [tetrahedron](#).

**1862** is the number of Chess positions that can be reached in only one way after 2 moves by white and 1 move by black.

**1863** is the larger number in a [Ruth-Aaron pair](#).

**1865** = 12345 in base 6.

**1866** is the number of inequivalent [Ferrers graphs](#) with 28 points.

**1868** is the smallest number that can not be formed using the digit 1 at most 20 times, together with the symbols +, × and ^.

**1869** is the closest [integer](#) to  $11^\pi$ .

**1870** is the product of two consecutive [Fibonacci numbers](#).

**1871** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**1873** is a value of  $n$  for which one less than the product of the first  $n$  [primes](#) is [prime](#).

**1875** is the smallest order for which there are 21 [groups](#).

**1876** is the closest [integer](#) to  $16^e$ .

**1880** is a number whose sum of [squares](#) of the [divisors](#) is a [square](#).

**1883** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{28}$ .

**1885** is a [Zeisel number](#).

**1889** is the smallest [prime](#) so that it and the next 4 [primes](#) are all equal to 5 (mod 6).

**1890** is the number of [permutations](#) of 10 items that fix 6 elements.

**1891** is a [triangular number](#) that is the product of two [primes](#).

**1893** is the number of 3×3 sliding puzzle positions that require exactly 14 moves to solve starting with the hole in a corner.

**1894** =  $1^4 2^3 3^2 4^1$

**1895** is a value of n for which n, 2n, 3n, 4n, 5n, and 6n all use the same number of digits in [Roman numerals](#).

**1896** is the number of [graphs](#) with 9 vertices with [clique number](#) 2.

**1897** is a [Padovan number](#).

**1898** is a value of n for which  $\sigma(n) = \varphi(n) + \varphi(n-1) + \varphi(n-2)$ .

**1900** is the largest [palindrome](#) in [Roman numerals](#).

**1902** has a [cube](#) that contains only even digits.

**1903** is the smallest number requiring an [addition chain](#) of length 15.

**1905** is a [Kaprekar constant](#) in base 2.

**1907** is a value of  $n$  for which  $n(n+2)$  is a [palindrome](#).

**1908** is the number of self-dual [planar graphs](#) with 22 edges.

**1911** is a [heptagonal pyramidal number](#).

**1912** is a structured octagonal anti-diamond number.

**1913** is [prime](#) and contains the same digits as the next [prime](#).

**1915** is the number of [semigroups](#) of order 5.

**1916** is the number of ways to tile a  $6 \times 5$  rectangle with [integer](#)-sided squares.

**1917** is the number of possible configurations of pegs (up to symmetry) after 27 jumps in solitaire.

**1919** is a member of the [Fibonacci](#)-type sequence starting with 2 and 7.

**1920** is the smallest number that contains more different digits than its [cube](#).

**1921** has a sum of [prime factors](#) that is equal to the sum of the [prime factors](#) of the two preceding numbers.

**1923** is the smallest number whose [cube](#) contains 5 consecutive 1's.

**1925** is a [hexagonal pyramidal number](#).

**1927** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 36 ways.

**1931** is the smallest number whose 7<sup>th</sup> power has 23 digits.

**1932** is 1/23 of the 23<sup>rd</sup> [Fibonacci number](#).

**1933** is a [prime factor](#) of 1111111111111111111111.

**1934** is the smallest number so that it and the next 11 numbers all have an even number of [prime factors](#).

**1935** is the maximum value of n so that there exist 4 denominations of stamps so that every postage from 1 to n can be paid for with at most 17 stamps.

**1936** is a [Hexanacci number](#).

**1937** is the number of digits of the 18<sup>th</sup> [perfect number](#).

**1941** is the maximum number of regions a circle can be cut into by joining 15 points on the circumference with straight lines.

**1942** is the smallest number whose [cube](#) contains 5 consecutive 8's.

**1944** is a member of the [Fibonacci](#)-like multiplication series starting with 2 and 3.

**1945** is the number of triangles of any size contained in the triangle of side 19 on a triangular grid.

**1947** is the number of [planar partitions](#) of 16.

**1948** is the number of 4×4 sliding puzzle positions that require exactly 10 moves to solve starting

with the hole in a corner.

**1950** =  $(144 + 145 + \dots + 156) = (157 + 158 + \dots + 168)$ .

**1952** + 2 is the sum of the [proper divisors](#) of 1952.

**1953** is a [Kaprekar constant](#) in base 2.

**1954** is the number of subsets of  $\{1, 2, 3, \dots, 16\}$  that do not contain solutions to  $x + y = z$ .

**1956** is the number of ways to color the vertices of a triangle with 18 colors, up to rotation.

**1957** is the number of [permutations](#) of some subset of 6 elements.

**1958** is the number of [partitions](#) of 25.

**1959** is a [Lucas 7-step number](#).

**1960** is the [Stirling number of the first kind](#)  $s(8,5)$ .

**1961** is a [strobogrammatic number](#).

**1962** is the smallest value of  $n$  for which  $2n$  and  $9n$  together use the digits 1-9 exactly once.

**1963** =  $7852 / 4$ , and this equation uses each digit 1-9 exactly once.

**1964** is the number of legal knight moves in Chess.

**1966** has a [cube](#) that contains only digits 5 and larger.

**1969** is the only known counterexample to a conjecture about modular [Ackermann functions](#).

**1973** has a 4<sup>th</sup> power that is 1/2 of the sum of three 4<sup>th</sup> powers.

**1976** is the maximum number of regions space can be divided into by 19 [spheres](#).

**1979** has a 6<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**1980** is the number of ways to fold a 2×4 rectangle of stamps.

**1983** is a [Perrin number](#).

**1990** is a [stella octangula number](#).

**1991** are the first 4 digits of  $6^{1991}$ .

**1994** is the number of digits in the 5<sup>th</sup> [Cullen prime](#).

**1995** is the number of [graphs](#) with 9 vertices with [clique number](#) 6.

**1997** is a [prime factor](#) of 87654321.

**1998** is the largest number that is the sum of its digits and the [cube](#) of its digits.

**1999** is the smallest number whose digits add to 28.

**2000** = 5555 in base 7.

**2001** has a [square](#) with the first 3 digits the same as the next 3 digits.



2002 =  $14\text{C}_5$ .

2003 is a [Lucas 8-step number](#).

2004 has a [square](#) with the last 3 digits the same as the 3 digits before that.

2007 divides the sum of the digits of  $2^{2007} \times 2007!$ .

2008 is a [Kaprekar constant](#) in base 3.

2009! ends in exactly 500 zeros.

2010 is the number of [trees](#) on 15 vertices with [diameter](#) 7.

2015 is a [Lucas-Carmichael number](#).

2016 is a value of  $n$  for which  $n^2 + n^3$  contains one of each digit.

2017 is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

2020 is an autobiographical number.

2021 is the product of two consecutive [primes](#).

2024 =  $24\text{C}_3$ .

2025 is a [square](#) that remains [square](#) if all its digits are incremented.

2028 is the number of [graphs](#) with 9 vertices that have [chromatic number](#) 6.

**2029** is an Eisenstein-Mersenne prime.

**2030** is the smallest number that can be written as a sum of 3 or 4 consecutive [squares](#).

**2034** is the number of [self-avoiding walks](#) of length 9.

**2036** is the number of ways 11 people can line up so that only one person has a taller person in front of him.

**2037** is a truncated cube number.

**2038** is the number of [Eulerian graphs](#) with 9 vertices.

**2039** is the smallest prime that contains ten 1's in binary.

**2040** =  $2040_5 + 2040_7 + 2040_8$ .

**2041** is a [12-hyperperfect number](#).

**2044** is the number of rectangles with corners on an  $9 \times 9$  grid of points.

**2045** is the number of unlabeled [partially ordered sets](#) of 7 elements.

**2046** is the maximum number of pieces a [torus](#) can be cut into with 22 cuts.

**2047** is the smallest [composite Mersenne number](#) with [prime](#) exponent.

**2048** is the smallest non-trivial  $11^{\text{th}}$  power.

**2049** is a [Cullen number](#).

**2050** is the number of subsets of the 22<sup>nd</sup> [roots of unity](#) that add to 0.

**2052** is the magic constant for a 8×8×8 [magic cube](#).

**2053** is a value of n for which one less than the product of the first n [primes](#) is [prime](#).

**2054** is the number of subsets of the 33<sup>rd</sup> [roots of unity](#) that add to 0.

**2055** is the [rectilinear crossing number](#) of [complete graph](#)  $K_{21}$

**2056** is the magic constant of a 16×16 magic square.

**2057** is a centered icosahedral number.

**2058** is the number of [integers](#) with [complexity](#) 27.

**2059** is a centered tetrahedral number.

**2061** is the number of sets of distinct positive [integers](#) with mean 7.

**2063** is a member of the [Fibonacci](#)-type sequence starting with 3 and 7.

**2067** is a value of n so that  $n(n+5)$  is a [palindrome](#).

**2072** is the smallest number that can be written in exactly 6 ways as the sum of a number and the product of its non-zero digits.

**2073** is a [Genocchi number](#).

**2074** is the smallest number that can not be formed using the digit 1 at most 24 times, together with the symbols +, −, × and ÷.

**2075** is the number of [connected graphs](#) with 9 vertices and 11 edges.

**2076** is a value of  $n$  for which  $n!!! + 1$  is [prime](#).

**2078** has a [cube](#) whose digits occur with the same frequency.

**2080** is the number of different arrangements (up to rotation and reflection) of 26 non-attacking [bishops](#) on a 14×14 chessboard.

**2081** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**2082** is the sum of its [proper divisors](#) that contain the digit 4.

**2086** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**2089** is the smallest number that ends an arithmetic progression of 10 numbers with the same [prime signature](#).

**2090** is the number of possible rows in a 17×17 crossword puzzle.

**2100** is divisible by its reverse.

**2101** =  $2101_5 + 2101_7 + 2101_8$ .

**2108** does not occur in its [factorial](#) in base 2.

**2109** is a value of  $n$  so that  $n(n+7)$  is a [palindrome](#).

**2110** is a value of  $n$  for which  $\text{reverse}(\varphi(n)) = \varphi(\text{reverse}(n))$ .

**2112** is the number of subsets of  $\{1, 1/2, 1/3, \dots, 1/36\}$  that sum to an [integer](#).

**2113** is a [Proth prime](#).

**2114** is a number whose product of digits is equal to its sum of digits.

**2116** has a base 10 representation which is the reverse of its base 7 representation.

**2118** is a member of the [Fibonacci](#)-type sequence starting with 1 and 5.

**2119** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**2120** is the number of ways to stack 16 pennies in a line so that each penny lies on the table or on two pennies.

**2122** is the index of a [prime Euclid number](#).

**2126** is a value of  $n$  so that  $n(n+3)$  is a [palindrome](#).

**2127** is not the sum of a [square](#), a [cube](#), a  $4^{\text{th}}$  power, and a  $5^{\text{th}}$  power.

**2128** is the  $7^{\text{th}}$  central quadrinomial coefficient.

**2130** and its reverse are both the averages of [twin primes](#).

**2131** is the number of domino tilings of a  $3 \times 12$  rectangle.

**2132** is the maximum number of  $11^{\text{th}}$  powers needed to sum to any number.

**2133** is a [2-hyperperfect number](#).

**2135** is a value of  $n$  for which  $\sigma(n-1) + \sigma(n+1) = \sigma(2n)$ .

**2136** is the number of different [degree sequences](#) possible for a graph with 15 edges.

**2137** does not occur in its [factorial](#) in base 2.

**2138** does not occur in its [factorial](#) in base 2.

**2140** is a cubic star number.

**2141** is a number whose product of digits is equal to its sum of digits.

**2143** is the number of [commutative semigroups](#) of order 6.

**2146** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**2147** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**2148** is the number of [15-ominoes](#) with a horizontal or vertical line of symmetry.

**2150** divides the sum of the largest [prime factors](#) of the first 2150 positive [integers](#).

**2155** is the smallest number whose [cube](#) has 10 digits.

**2156** is the number of different positions in Connect Four after 5 moves.

**2158** is a number  $n$  for which  $n^2+1$  is 6 times another square.

**2160** is the order of a [perfect group](#).

**2161** is a [prime factor](#) of 11111111111111111111111111111111.

**2163** are the first 4 digits of  $\pi^{2163}$ .

**2164** is the smallest number whose 7<sup>th</sup> power starts with 5 identical digits.

**2167** is the number of [partitions](#) of 34 that do not contain 1 as a part.

**2168** is a structured hexagonal diamond number.

**2169** is a [Leyland number](#).

**2176** is the number of [prime knots](#) with 12 [crossings](#).

**2178** is the only number known which when multiplied by its reverse yields a 4<sup>th</sup> power.

**2179** is a [Wedderburn-Etherington number](#).

**2182** is the number of degree 15 [irreducible polynomials](#) over [GF\(2\)](#).

**2184** is the product of three consecutive [Fibonacci numbers](#).

**2185** is the number of digits of  $5^{5^5}$ .

**2186** = 2222222 in base 3.

**2187** is a strong [Friedman number](#).

**2188** is the 10<sup>th</sup> [Motzkin number](#).

**2192** is the number of necklaces (that can't be turned over) possible with 15 beads, each being one of 2 colors.

**2194** is the number of [partitions](#) of 42 in which no part occurs only once.

**2195** is the number of necklaces with 9 beads, each one of 3 colors.

**2196** is the only number  $n$  so that  $2n$ ,  $3n$ ,  $7n$ , and  $9n$  together contain every digit 1-9 exactly twice.

**2197** =  $13^3$ .

**2199** is a [perfect totient number](#).

**2201** is the only non-[palindrome](#) known to have a [palindromic cube](#).

**2202** is a factor of the sum of the digits of  $2202^{2202}$ .

**2203** is the exponent of a [Mersenne prime](#).

**2204** has the property that the sum of the [factorials](#) of its digits is its largest [prime factor](#).



**2205** is an odd [primitive abundant number](#).

**2207** is the 16<sup>th</sup> [Lucas number](#).

**2208** is a [Keith number](#).

**2209** is a [Tribonacci](#)-like number starting from 1, 1, and 1.

**2210** =  $_{47}C_2 + {}_{47}C_2 + {}_{47}C_1 + {}_{47}C_0$ .

**2211** is a [triangular number](#) whose internal digits are [triangular](#) and whose external digits are [triangular](#).

**2212** is the closest [integer](#) to  $17^e$ .

**2213** =  $2^3 + 2^3 + 13^3$ .

**2217** has a base 2 representation that begins with its base 3 representation.

**2219** is the number of [14-hexes](#) with reflectional symmetry.

**2221** is a value of n for which  $\sigma(n)$  is a [repdigit](#).

**2222** is the smallest number divisible by a 1-digit [prime](#), a 2-digit [prime](#), and a 3-digit [prime](#).

**2223** is a [Kaprekar number](#).

**2225** has the property that the sum of the  $n^{\text{th}}$  powers of its digits is prime for  $1 \leq n \leq 9$ .

**2226** is the smallest number whose [cube](#) contains 4 consecutive 9's.

**2228** is the number of congruency classes of triangles with vertices from a  $11 \times 11$  grid of points.

**2230** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**2234** is the number of ways to stack 24 pennies in contiguous rows so that each penny lies on the table or on two pennies.

**2235** is a value of  $n$  so that  $n(n+8)$  is a [palindrome](#).

**2239** is a [prime](#) that remains [prime](#) if any digit is deleted.

**2240** is the number of unsymmetrical ways to dissect a [regular](#) 13-gon into 11 triangles.

**2241** is the sum of 3 consecutive [cubes](#).

**2243** is the smallest [prime](#) so that it and the next 2 [primes](#) are all equal to 3 (mod 8).

**2244** is the [generalized Catalan number](#)  $C(14,4)$ .

**2245** is the number of ways to tile a  $8 \times 4$  rectangle with  $2 \times 1$  rectangles.

**2250** is the number of necklaces possible with 16 beads, each being one of 2 colors.

**2252** is a [Franel number](#).

**2253** is the number of [monic polynomials](#) of [degree](#) 11 with [integer](#) coefficients whose complex roots are all in the unit disk.

**2255** is the number of triangles of any size contained in the triangle of side 20 on a triangular grid.

**2257** = 4321 in base 8.

**2258** is the number of [anisoedral 16-ominoes](#).

**2260** is an icosahedral number.

**2261** =  $2222 + 22 + 6 + 11$ .

**2263** =  $2222 + 2 + 6 + 33$ .

**2264** is the number of [graphs](#) with 8 vertices that have 4 [automorphisms](#).

**2266** is a dodecagonal pyramidal number.

**2268** is the number of binary [partitions](#) of 34.

**2269** is a [Cuban prime](#).

**2272** is the number of [graphs](#) on 7 vertices with no isolated vertices.

**2273** is the number of [functional graphs](#) on 10 vertices.

**2274** is the sum of its [proper divisors](#) that contain the digit 7.

**2275** is the sum of the first six  $4^{\text{th}}$  powers.

**2277** is the [trinomial coefficient](#)  $T(11,6)$ .

**2281** is the exponent of a [Mersenne prime](#).

**2282** is the number of ways, up to rotation and reflection, of dissecting a [regular](#) 13-gon into 11 triangles.

**2284** is the number of 7-digit perfect powers.

**2285** is a non-[palindrome](#) with a [palindromic square](#).

**2291** is the number of inequivalent [Ferrers graphs](#) with 29 points.

**2292** is a [narcissistic number](#) in base 6.

**2293** is a [prime](#) that remains [prime](#) if any digit is deleted.

**2295** is the smallest number so that it and its successor are both the product of 2 [primes](#) and the [cube](#) of a [prime](#).

**2296** is a structured great rhombicuboctahedral number.

**2297** is the number of inequivalent binary [linear codes](#) of length 10.

**2299** is the number of ordered sequences of coins totaling 28 cents.

**2300** =  $_{25}\underline{C}_3$ .

**2303** is a number whose [square](#) and [cube](#) use different digits.

**2304** is the number of edges in a 9 dimensional [hypercube](#).

**2305** has a base 6 representation that ends with its base 8 representation.

**2306** has a base 6 representation that ends with its base 8 representation.

**2307** has a base 6 representation that ends with its base 8 representation.

**2308** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{29}$ .

**2309** is the largest [prime factor](#) of  $2 \times 3 \times 5 \times 7 \times 11 - 1$ .

**2310** is the product of the first 5 [primes](#).

**2311** is a [Euclid number](#).

**2312** is the number of [series-reduced planted trees](#) with 10 leaves.

**2316** =  $1^7 + 2^7 + 3^7$ .

**2318** is the number of [connected planar graphs](#) with 10 edges.

**2320** is the maximum number of regions space can be divided into by 20 [spheres](#).

**2321** is a [Huay rhombic dodecahedral number](#).

**2322** is the number of [connected graphs](#) with 10 edges.

**2323** is the maximum number of pieces a [torus](#) can be cut into with 23 cuts.

**2324** is a [narcissistic number](#) in base 6.

**2325** is the maximum number of regions a [cube](#) can be cut into with 24 cuts.

**2326** is the smallest number whose [cube](#) contains every digit at least once.

**2328** is the number of [groups](#) of order 128.

**2331** is a [centered cube number](#).

**2333** is a [right-truncatable prime](#).

**2336** is the number of sided [11-iamonds](#).

**2339** is the number of ways to tile a  $6 \times 10$  rectangle with the [pentominoes](#).

**2340** = 4444 in base 8.

**2342** is the number of subsets of  $\{1, 2, 3, \dots, 15\}$  that have a sum divisible by 14.

**2343** = 33333 in base 5.

**2344** is the number of necklaces with 7 beads, each one of 4 colors.

**2345** has digits in [arithmetic sequence](#).

**2349** is a [Friedman number](#).

**2350** is the number of quasi-[triominoes](#) that fit inside a  $11 \times 11$  grid.

**2351** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**2352** does not occur in its [factorial](#) in base 2.

**2353** has the property that  $588^2 + 2353^2 = 5882353$  and  $9412^2 + 2353^2 = 94122353$ .

**2354** =  $2222 + 33 + 55 + 44$ .

**2357** is a [Smarandache](#)  [Wellin prime](#).

**2359** =  $2222 + 33 + 5 + 99$ .

**2360** is a [hexagonal pyramidal number](#).

**2363** does not occur in its [factorial](#) in base 2.

**2365** is a value of  $n$  for which  $n(n+2)$  is a [palindrome](#).

**2366** is the number of ways to legally add 2 sets of parentheses to a product of 12 variables.

**2368** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 14 moves to solve starting with the hole in the center.

**2371** is the number of ways a  $7 \times 1$  rectangle can be surrounded by  $7 \times 1$  rectangles.

**2372** is the smallest number whose  $8^{\text{th}}$  power has 27 digits.

**2376** is a structured truncated tetrahedral number.

**2377** is a value of  $n$  for which one less than the product of the first  $n$  [primes](#) is [prime](#).

**2378** is the 10<sup>th</sup> [Pell number](#).

**2380** =  $_{17}C_4$ .

**2385** is the smallest number whose 7<sup>th</sup> power contains exactly the same digits as another 7<sup>th</sup> power.

**2387** is a structured rhombic triacontahedral number.

**2388** is the number of [3-connected graphs](#) with 8 vertices.

**2391** is the number of ways to flip a coin 12 times and get at least 3 heads in a row.

**2393** is a [right-truncatable prime](#).

**2394** is the smallest value of  $n$  for which  $n$  and  $7n$  together use each digit 1-9 exactly once.

**2397** is the number of intersections when all the diagonals of a [regular](#) 17-gon are drawn.

**2398** is the number of 3×3 sliding puzzle positions that require exactly 28 moves to solve starting with the hole in the center.

**2399** is a [right-truncatable prime](#).

**2400** = 6666 in base 7.

**2401** is the 4<sup>th</sup> power of the sum of its digits.



**2402** has a base 2 representation that begins with its base 7 representation.

**2405** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**2406** is a [truncated octahedral number](#).

**2407** is a value of  $n$  for which  $\sigma(\phi(n)) = 2\sigma(n)$ .

**2410** is the number of [3-valent trees](#) with 16 vertices.

**2411** is a number whose product of digits is equal to its sum of digits.

**2414** is the number of symmetric [plane partitions](#) of 28.

**2417** has a base 3 representation that begins with its base 7 representation.

**2420** is the number of possible rook moves on a 11×11 chessboard.

**2422** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 41 ways.

**2424** has a [cube](#) that contains the digits 2424 in reverse order.

**2427** =  $2^1 + 4^2 + 2^3 + 7^4$ .

**2430** is the number of unordered ways to write 1 as a sum of reciprocals of [integers](#) no larger than 18.

**2431** is the [Stirling number of the second kind](#)  $S(13,11)$ .

**2432** does not occur in its [factorial](#) in base 2.

**2434** is the number of legal king moves in Chess.

**2436** is the number of [partitions](#) of 26.

**2445** is a [truncated tetrahedral number](#).

**2448** is the order of a [non-cyclic simple group](#).

**2450** has a base 3 representation that begins with its base 7 representation.

**2457** =  $169 + 170 + \dots + 182 = 183 + 184 + \dots + 195$ .

**2460** = 3333 in base 9.

**2464** is the number of [permutations](#) of 8 items that fix 3 elements.

**2465** is a [Carmichael number](#).

**2466** is the number of regions formed when all diagonals are drawn in a [regular](#) 18-gon.

**2467** has a [square](#) with the first 3 digits the same as the next 3 digits.

**2468** =  $2 + 22 + 222 + 2222$ .

**2469** is the smallest value of  $n$  for which  $4n$  and  $5n$  together use the digits 1-9 exactly once.

**2470** is the sum of the first 19 [squares](#).

**2471** is the smallest number that can not be formed using the numbers  $2^0, 2^1, \dots, 2^6$ , together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**2474** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**2477** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**2478** is the number of [anisohedral 20-iamonds](#).

**2484** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of  $18^{\text{th}}$  [roots of unity](#).

**2485** is the number of planar partitions of 13.

**2487** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**2491** is the product of two consecutive [primes](#).

**2495** is the number of [13-iamonds](#) that tile the plane.

**2496** is the number of [3-connected planar](#) maps with 17 edges.

**2498** shares 3 consecutive digits with one of its [prime factors](#).

**2499** has a [square root](#) that starts 49.989998999....

**2500** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**2501** is a [Friedman number](#).

**2502** is a strong [Friedman number](#).

**2503** is a [Friedman number](#).

**2504** is a [Friedman number](#).

**2505** is a [Friedman number](#).

**2506** is a [Friedman number](#).

**2507** is a [Friedman number](#).

**2508** is a [Friedman number](#).

**2509** is a [Friedman number](#).

**2510** is the maximum value of  $n$  so that there exist 6 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 10 stamps.

**2511** is the smallest number so that it and its successor are both the product of a [prime](#) and the 4<sup>th</sup> power of a [prime](#).

**2512** is the smallest number whose 5<sup>th</sup> power has 17 digits.

**2513** is a [Padovan number](#).

**2515** is the number of symmetric 9-cubes.

**2517** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of

17<sup>th</sup> [roots of unity](#).

2518 uses the same digits as  $\phi(2518)$ .

2519 is the smallest number  $n$  where either  $n$  or  $n+1$  is divisible by the numbers from 1 to 12.

2520 is the smallest number divisible by 1 through 10.

2522 is the number of subsets of  $\{1,2,3,\dots,15\}$  that have a sum divisible by 13.

2524 and the two numbers before it and after it are all products of exactly 3 [primes](#).

2525 and the two numbers before it and after it are all products of exactly 3 [primes](#).

2528 is a structured truncated octahedral number.

2530 is a [Leyland number](#).

2532 = 2222 + 55 + 33 + 222.

2535 is the number of ways to 13-color the faces of a [tetrahedron](#).

2538 has a [square](#) with 5/7 of the digits are the same.

2540 has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

2542 is the number of stretched [9-ominoes](#).

2545 =  $2545_6 + 2545_9$ .

**2548** is the [generalized Catalan number](#)  $C(11,5)$ .

**2550** is a [Kaprekar constant](#) in base 4.

**2551** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 40 ways.

**2557** is the number of [proper divisors](#) of the 15<sup>th</sup> [perfect number](#).

**2558** is the number of [divisors](#) of the 15<sup>th</sup> [perfect number](#).

**2560** is the number of  $2 \times 2$  [singular matrices](#) mod 8.

**2561** is the number of digits of the 19<sup>th</sup> [perfect number](#).

**2562** is a structured pentakis dodecahedral number.

**2570** is the number of subsets of  $\{1,2,3,\dots,14\}$  that have an [integer](#) average.

**2571** is the smallest number with the property that its first 7 multiples contain the digit 1.

**2573** is the number of [partitions](#) of 35 that do not contain 1 as a part.

**2574** is a value of  $n$  for which  ${}_n C_n$  is divisible by  $n^2$ .

**2576** has exactly the same digits in 3 different bases.

**2580** is a [Keith number](#).

**2581** is the smallest number whose [square](#) begins with three 6's.

**2582** is the smallest number whose [square](#) begins with four 6's.

**2583** is the sum of the first 16 [Fibonacci numbers](#).

**2584** is the 18<sup>th</sup> [Fibonacci number](#).

**2585** is a truncated square pyramid number.

**2587** is a value of  $n$  for which  $\varphi(n) + \varphi(n+1)$  divides  $\sigma(n) + \sigma(n+1)$ .

**2590** is the number of [partitions](#) of 47 into distinct parts.

**2592** =  $2^5 9^2$ .

**2593** has a base 3 representation that ends with its base 6 representation.

**2594** has a base 3 representation that ends with its base 6 representation.

**2596** is the number of triangles of any size contained in the triangle of side 21 on a triangular grid.

**2600** =  $26C_3$ .

**2601** is a [pentagonal pyramidal number](#).

**2606** is the number of [polyhedra](#) with 9 vertices.

**2609** is the number of [perfect squared rectangles](#) of order 15.

**2611** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 39 ways.

**2614** is the smallest value of  $n$  for which  $\pi(9n) = n$ .

**2615** is the number of functions from 9 unlabeled points to themselves.

**2616** is the number of [graphs](#) with 9 vertices and 6 cycles.

**2617** is the index of a [Wagstaff prime](#).

**2618** has a sum of digits equal to its largest [prime factor](#).

**2620** is an [amicable number](#).

**2621** =  $2222 + 66 + 222 + 111$ .

**2622** is a value of  $n$  for which  $7n$  and  $8n$  together use each digit exactly once.

**2623** =  $2222 + 66 + 2 + 333$ .

**2624** is the maximum number of pieces a [torus](#) can be cut into with 24 cuts.

**2625** is a centered octahedral number.

**2626** is the maximum number of regions a [cube](#) can be cut into with 25 cuts.

**2627** is a [Perrin number](#).

**2629** is the smallest number whose [reciprocal](#) has period 14.



**2631** is a [Lucas 4-step number](#).

**2632** has the same digits as the 2632<sup>nd</sup> [prime](#).

**2635** is the number of necklaces with 6 beads, each one of 5 colors.

**2636** is a non-[palindrome](#) with a [palindromic square](#).

**2637** is the number of [commutative monoids](#) of order 7.

**2639** is an enneagonal pyramidal number.

**2641** is the [pseudosquare](#) modulo 11.

**2642** =  $5^2 + 6^3 + 7^4$ .

**2646** is the [Stirling number of the second kind](#)  $S(9,6)$ .

**2647** is the index of a [prime Euclid number](#).

**2651** is the number of asymmetric [trees](#) with 12 vertices.

**2652** is the 9<sup>th</sup> super-ballot number.

**2657** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**2659** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 13 stamps.

**2662** is a [palindrome](#) and the 2662<sup>nd</sup> [triangular number](#) is a [palindrome](#).

**2663** is the number of digits of the 20<sup>th</sup> [perfect number](#).

**2664** is the smallest value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ ,  $n+3$ , and  $n+4$  have the same number of [prime factors](#).

**2665** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 14 dimensional [hypercube](#).

**2667** is a number whose sum of [divisors](#) is a 6<sup>th</sup> power.

**2668** is the number of lines through exactly 2 points of a 11×11 grid of points.

**2671** is a value of  $n$  for which  $2n$  and  $7n$  together use the digits 1-9 exactly once.

**2672** and its successor are both divisible by 4<sup>th</sup> powers.

**2673** is the largest number known that does not have any digits in common with its 4<sup>th</sup> power.

**2676** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**2678** is the number of [connected graphs](#) with 10 vertices and 11 edges.

**2680** is the number of different arrangements of 11 non-attacking [queens](#) on an 11×11 chessboard.

**2682** is a number  $n$  for which  $\phi(n)$  is a [repdigit](#).

**2683** is the largest  $n$  so that  $Q(\sqrt{n})$  has [class number](#) 5.

**2685** is a value of  $n$  for which  $\sigma(n) = \sigma(n+1)$ .

**2688** is the order of a [perfect group](#).

**2689** is a [Proth prime](#).

**2690** is the number of terms in the 9<sup>th</sup> derivative of  $f(f(f(f(f(x)))))$ .

**2692** is the sum of the [squares](#) of 4 consecutive [primes](#).

**2694** is the number of ways 22 people around a round table can shake hands in a non-crossing way, up to rotation.

**2697** is the smallest value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**2700** is the product of the first 5 [triangular numbers](#).

**2701** is the smallest number  $n$  which divides the average of the  $n^{\text{th}}$  [prime](#) and the [primes](#) surrounding it.

**2702** is the maximum number of regions space can be divided into by 21 [spheres](#).

**2704** is the number of necklaces with 9 white and 9 black beads.

**2710** is an hexagonal prism number.

**2712** is the number of [12-ominoes](#) that tile the plane by translation.

**2717** is the number of [9-hexes](#) that do not tile the plane.

**2718** is the [integer](#) part of  $1000e$ .

**2719** is the largest odd number that can not be written in the form  $x^2 + y^2 + 10z^2$ .

**2722** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**2725** is the number of fixed [octominoes](#).

**2728** is a [Kaprekar number](#).

**2729** has a [square](#) with the first 3 digits the same as the next 3 digits.

**2730** =  $_{15}P_3$ .

**2731** is a [Wagstaff prime](#).

**2733** is the number of possible positions in Checkers after 5 moves.

**2736** is an [octahedral number](#).

**2737** is a strong [Friedman number](#).

**2743** is a centered dodecahedral number.

**2744** is the smallest number that can be written as the sum of a [cube](#) and a  $4^{\text{th}}$  power in more than one way.

**2745** divides the sum of the [primes](#) less than it.

**2748** is ABC in [hexadecimal](#).

**2749** is the smallest index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

**2751** is the number of ordered [partitions](#) of 21 into distinct parts.

**2752** is a structured snub cubic number.

**2753** is the number of subsequences of  $\{1,2,3,\dots,13\}$  in which every odd number has an even neighbor.

**2757** is the number of possible configurations of pegs (up to symmetry) after 7 jumps in solitaire.

**2758** has the property that placing the last digit first gives 1 more than triple it.

**2766** in hexadecimal spells the word ACE.

**2767** is the smallest number that can not be formed using the digit 1 at most 25 times, together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**2768** is [7-automorphic](#).

**2769** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**2770** is the [Entringer number](#)  $E(8,1)$ .

**2772** is a factor of  $27 \times 77 \times 72$ .

**2773** is the smallest number that can not be written as the sum of 3 volumes of rectangular boxes with [integer](#) dimensions less than 12.

**2777** +  $\sigma(2777) = 5555$ .

**2780** =  $1^8 + 2^7 + 3^6 + 4^5 + 5^4 + 6^3 + 7^2 + 8^1$ .

**2782** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 19 stamps.

**2783** is the smallest number whose  $9^{\text{th}}$  power has 31 digits.

**2786** is the  $9^{\text{th}}$  [Pell-Lucas number](#).

**2787** is a value of  $n$  for which the first  $n$  binary digits of  $\pi$  form a [prime](#).

**2790** is the number of binary [partitions](#) of 36.

**2791** is a [Cuban prime](#).

**2792** is the smallest number that can not be written using 13 copies of 13 and the operations  $+$ ,  $-$ ,  $\times$ , and  $\div$ .

**2793** is the number of inequivalent asymmetric [Ferrers graphs](#) with 30 points.

**2801** = 11111 in base 7.

**2802** is the sum of its [proper divisors](#) that contain the digit 4.

**2805** is the smallest order of a [cyclotomic polynomial](#) whose factorization contains 6 as a coefficient.

**2806** is the number of [semigroups](#) of order 6 with 2 [idempotents](#).

**2808** =  $(9 \times 10 \times 11 \times 12 \times 13) / (9 + 10 + 11 + 12 + 13)$  .

**2810** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**2811** is the number of inequivalent [Ferrers graphs](#) with 30 points.

**2812** is the number of 8-pents.

**2817** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**2821** is a [Carmichael number](#).

**2824** is the smallest number whose [cube](#) contains six 2's.

**2828** is a value of  $n$  so that  $n(n+8)$  is a [palindrome](#).

**2829** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**2832** is the number of ways to place 2 non-attacking [bishops](#) on a 9×9 chessboard.

**2834** is a [composite number](#)  $n$  that divides the  $(n+1)^{\text{st}}$  [Fibonacci number](#).

**2835** is a [Rhonda number](#).

**2842** is the smallest number with the property that its first 4 multiples contain the digit 8.

**2844** is the sum of the first 15 numbers that have digit sum 15.

**2846** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**2847** is a house number.

**2848** is the smallest number whose [square](#) contains 4 consecutive 1's.

**2849** is the largest number  $n$  known whose base 11 representation is equal to  $\phi(n)$ .

**2850** is the [trinomial coefficient](#)  $T(10,4)$ .

**2855** is the smallest number that can not be formed using the digit 1 at most 21 times, together with the symbols  $+$ ,  $\times$  and  $^$ .

**2856** =  $17!!!!$ .

**2857** is the number of [partitions](#) of 44 in which no part occurs only once.

**2858** has a [square](#) with the first 3 digits the same as the next 3 digits.

**2863** has a  $10^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

**2867** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).



**2868** has a 4<sup>th</sup> power containing only 4 different digits.

**2869** is a centered icosahedral number.

**2870** is the sum of the first 20 [squares](#).

**2871** is a cubic star number.

**2872** is the 15<sup>th</sup> [Tetranacci number](#).

**2874** is the number of [multigraphs](#) with 5 vertices and 12 edges.

**2876** is the number of 8-hepts.

**2878** is the number of [integers](#) with [complexity](#) 28.

**2879** is the smallest number with [complexity](#) 27.

**2880** =  $4! \times 5!$ .

**2881** has a base 3 representation that ends with its base 6 representation.

**2882** has a base 3 representation that ends with its base 6 representation.

**2887** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 43 ways.

**2888** is the first of five consecutive [squareful](#) numbers.

**2889** is a number  $n$  for which  $n^2+1$  is 5 times another square.

**2890** is the smallest number in base 9 whose [square](#) contains the same digits in the same proportion.

**2893** is the number of [planar 2-connected graphs](#) with 8 vertices.

**2895** is the smallest  $n$  for which  $38n$  contains only 0's and 1's.

**2897** is a [Markov number](#).

**2900** is the number of [self-avoiding walks](#) in a quadrant of length 10.

**2907** is the [trinomial coefficient](#)  $T(9,1)$ .

**2910** is the number of [partitions](#) of 48 into distinct parts.

**2911** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**2913** is a value of  $n$  for which  $\sigma(n-1) + \sigma(n+1) = \sigma(2n)$ .

**2914** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**2915** is a [Lucas-Carmichael number](#).

**2916** is a [Friedman number](#).

**2917** is the number of digits of the 21<sup>st</sup> [Mersenne prime](#).

**2918** is the number of ways to break  $\{1,2,3, \dots, 15\}$  into sets with equal sums.

**2919** =  $(2 + 9 + 1 + 9) \times (29 + 91 + 19)$ .

**2920** is a [heptagonal pyramidal number](#).

**2922** is the sum of its [proper divisors](#) that contain the digit 4.

**2924** is an [amicable number](#).

**2925** =  $_{27}\text{C}_3$ .

**2926** has a sum of digits equal to its largest [prime factor](#).

**2928** is the number of [partitions](#) of 45 in which no part occurs only once.

**2931** is the number of [trees](#) on 16 vertices with [diameter](#) 6.

**2933** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**2937** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**2938** is the number of [binary rooted trees](#) with 17 vertices.

**2939** is a [right-truncatable prime](#).

**2943** is the smallest value of  $n$  for which  $n$  and  $6n$  together use each digit 1-9 exactly once.

**2947** is the smallest number whose  $5^{\text{th}}$  power starts with 4 identical digits.

**2950** is the maximum number of pieces a [torus](#) can be cut into with 25 cuts.

**2952** is the maximum number of regions a [cube](#) can be cut into with 26 cuts.

**2953** is the smallest number whose [cube](#) contains six 7's.

**2955** has a 5<sup>th</sup> power whose digits all occur twice.

**2958** is the number of [multigraphs](#) with 21 vertices and 4 edges.

**2964** is a [Smith brother](#).

**2965** is a [Smith brother](#).

**2966** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**2967** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**2970** is a [harmonic divisor number](#).

**2971** is the index of a [prime Fibonacci number](#).

**2973** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**2974** is a value of  $n$  for which  $\sigma(n) = \sigma(n+1)$ .

**2978** is the number of unlabeled [distributive lattices](#) with 17 elements.

**2981** is the closest [integer](#) to  $e^8$ .

**2982** is a value of  $n$  so that  $n(n+7)$  is a [palindrome](#).

**2983** is the number of [trees](#) on 28 vertices with [diameter](#) 4.

**2984** is the number of different products of subsets of the set  $\{1, 2, 3, \dots, 15\}$ .

**2988** is the number of [series-reduced trees](#) with 20 vertices.

**2989** in hexadecimal spells the word BAD.

**2991** uses the same digits as  $\varphi(2991)$ .

**2992** is the closest [integer](#) to  $19^e$ .

**2993** is the number of digits of the  $22^{\text{nd}}$  [Mersenne prime](#).

**2996** is the number of terms in the  $15^{\text{th}}$  derivative of  $f(f(f(x)))$ .

**2997** =  $222 + 999 + 999 + 777$ .

**2998** is a value of  $n$  so that  $n(n+3)$  is a [palindrome](#).

**2999** =  $2 + 999 + 999 + 999$ .

**3000** is the number of symmetric arrangements of 7 non-attacking [queens](#) on a  $7 \times 7$  chessboard.

**3001** is  $1/24$  of the  $24^{\text{th}}$  [Fibonacci number](#).

**3003** is the only number known to appear 8 times in [Pascal's triangle](#).

**3005** is the number of functions from  $\{1,2,3,4,5\}$  to itself that are not [injections](#).

**3006** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**3008** is the number of symmetric [plane partitions](#) of 29.

**3010** is the number of [partitions](#) of 27.

**3012** is the sum of its [proper divisors](#) that contain the digit 5.

**3015** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**3016** is a value of  $n$  for which  $n \phi(n)$  is a [palindrome](#).

**3020** is the closest [integer](#) to  $\pi^7$ .

**3024** =  $9P_4$ .

**3025** is the sum of the first 10 [cubes](#).

**3026** is the number of 10-ominoes that tile the plane [isohedrally](#).

**3028** are the first 4 digits of  $5^{3028}$ .

**3031** is the number of [7-kings](#).

**3032** is the number of [trees](#) on 19 vertices with [diameter](#) 5.

**3036** is the sum of its [proper divisors](#) that contain the digit 5.

**3038** has a [square](#) that remains [square](#) when a 9 is appended to it.

**3044** is the number of [nonisomorphic](#) unlabeled [binary relations](#) on 4 elements.

**3045** =  $196 + 197 + \dots + 210 = 211 + 212 + \dots + 224$ .

**3049** is the number of ways to tile a  $8 \times 4$  rectangle with [integer](#)-sided squares.

**3053** in hexadecimal spells the word BED.

**3054** =  $6 \times 7 \times 8 \times 9 + 6 + 7 + 8 + 9$ .

**3055** is a number with the property that the [root-mean-square](#) of its [divisors](#) is an integer.

**3056** is a structured snub dodecahedral number.

**3057** is the number of [rooted ternary trees](#) with 12 vertices.

**3058** is the number of 7-digit [triangular numbers](#).

**3059** is a [centered cube number](#).

**3060** =  $_{18}\text{C}_4$ .

**3063** is a [perfect totient number](#).

**3066** is the average of the first 853 [primes](#).

**3068** is the number of [10-ominoes](#) that tile the plane.

**3069** is a [Kaprekar constant](#) in base 2.

**3070** is the number of paraffins with 9 carbon atoms.

**3071** is a [Thabit number](#).

**3072** is the smallest number with exactly 22 [divisors](#).

**3074** is the number of binary [partitions](#) of 37.

**3077** is the [rectilinear crossing number](#) of [complete graph](#)  $K_{23}$

**3078** is a [pentagonal pyramidal number](#).

**3080** is the number of drawings of the [complete graph](#)  $K_9$  with a minimal number of [Achilles number](#).

**3089** is the smallest [prime](#) so that it and the next 2 [primes](#) all end in 9.

**3092** is a structured truncated tetrahedral number.

**3094** = 21658 / 7, and each digit is contained in the equation exactly once.

**3096** is the number of 3×3×3 sliding puzzle positions that require exactly 7 moves to solve.

**3097** is the largest known number  $n$  with the property that in every base, there exists a number that is  $n$  times the sum of its digits.



**3101** is the number of ways to color the vertices of a triangle with 21 colors, up to rotation.

**3103** =  ${}^{22}\text{C}_3 + {}^{22}\text{C}_1 + {}^{22}\text{C}_0 + {}^{22}\text{C}_3$ .

**3105** is a member of the [Fibonacci](#)-type sequence starting with 2 and 7.

**3106** is both the sum of the digits of the 16<sup>th</sup> and the 17<sup>th</sup> [Mersenne prime](#).

**3107** is the number of ways to divide a 10×10 grid of points into two sets using a straight line.

**3109** is the smallest [prime](#)  $n$  so that  $n/\pi(n) > 7$ .

**3110** = 22222 in base 6.

**3112** is the number of 10-digit strings where consecutive digits differ by exactly 1.

**3114** has a [square](#) containing only 2 digits.

**3115** has the property that if each digit is replaced by its [square](#), the resulting number is a [cube](#).

**3119** is a [right-truncatable prime](#).

**3120** is the product of the first 6 [Fibonacci numbers](#).

**3121** =  $3121_5 + 3121_7 + 3121_8$ .

**3122** is the number of ordered sequences of coins totaling 29 cents.

**3124** = 44444 in base 5.

**3125** is a strong [Friedman number](#).

**3126** is a [Sierpinski Number of the First Kind](#).

**3127** is the product of two consecutive [primes](#).

**3135** is the smallest order of a [cyclotomic polynomial](#) whose factorization contains 7 as a coefficient.

**3136** is a [square](#) that remains [square](#) if all its digits are decremented.

**3137** is the number of [planar partitions](#) of 17.

**3139** is the 9<sup>th</sup> [central trinomial coefficient](#).

**3141** is the [integer](#) part of 1000  $\pi$ .

**3146** is a structured deltoidal hexacontahedral number.

**3148** is the number of different [degree sequences](#) possible for a graph with 9 vertices.

**3150** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**3153** =  $1^1 + 3^3 + 5^5$ .

**3156** is the sum of its [proper divisors](#) that contain the digit 5.

**3159** is the number of [trees](#) with 14 vertices.

**3160** is the largest known value of  $n$  for which  $2n\text{C}_n$  is not divisible by the first 5 [primes](#).

**3161** is the smallest number whose [square](#) begins with three 9's.

**3162** is the largest number whose [square](#) has 6 digits.

**3163** is the smallest number whose [square](#) has 7 digits.

**3168** has a [square](#) whose reverse is also a [square](#).

**3169** is a [Cuban prime](#).

**3171** is the sum of the [squares](#) of 3 consecutive [primes](#).

**3173** is the number of different [degree sequences](#) possible for a graph with 16 edges.

**3174** is the first of four consecutive [squareful](#) numbers.

**3178** = 4321 in base 9.

**3179** is the number of [13-ominoes](#) that tile the plane by translation.

**3180** has a base 3 representation that ends with its base 5 representation.

**3181** has a base 3 representation that ends with its base 5 representation.

**3182** has a base 3 representation that ends with its base 5 representation.

**3184** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**3185** is the number of ways to legally add 2 sets of parentheses to a product of 13 variables.

**3186** is a value of  $n$  for which  ${}_{2n}C_n$  is not divisible by 3, 5, or 7.

**3187** is the smallest value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**3189** is the number of [non-commutative non-associative](#) closed [binary operations](#).

**3190** is a [narcissistic number](#) in base 7.

**3191** is the smallest number whose [reciprocal](#) has period 29.

**3192** is the number of [planar graphs](#) with 8 vertices, all with [degree](#) 2 or more.

**3195** is the number of congruency classes of triangles with vertices from a  $12 \times 12$  grid of points.

**3200** is the number of [graceful permutations](#) of length 13.

**3203** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**3206** is the smallest number whose [square](#) contains 8 different digits.

**3210** is the smallest 4-digit number with decreasing digits.

**3212** =  $3^7 + 2^9 + 1^7 + 2^9$ .

**3214** is the maximum number of regions a circle can be cut into by joining 17 points on the circumference with straight lines.

**3216** is the smallest number with the property that its first 6 multiples contain the digit 6.

**3217** is the exponent of a [Mersenne prime](#).

**3218** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**3225** is the number of [symmetric](#)  $3 \times 3$  matrices in base 5 with [determinant](#) 0.

**3226** is the number of [12-diamonds](#) without holes.

**3229** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**3232** is the number of isomers of  $C_{12}H_{24}$  without any double bonds.

**3237** is the number of [groupoids](#) on 3 elements with no symmetry.

**3240** is the number of  $3 \times 3 \times 3$  [Rubik's cube](#) positions that require exactly 3 moves to solve.

**3242** has a [square](#) with the first 3 digits the same as the next 3 digits.

**3243** in hexadecimal spells the word CAB.

**3244** is the number of asymmetric [trees](#) with 18 vertices.

**3245** in hexadecimal spells the word CAD.

**3247** is the number of [connected graphs](#) with 9 vertices and 25 edges.

**3248** is the number of legal bishop moves in Chess.

**3249** is the smallest [square](#) that is comprised of two [squares](#) that overlap in one digit.

**3250** is a value of  $n$  for which  ${}_n\text{C}_n$  is not divisible by 3, 5, or 7.

**3251** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**3252** is the number of [graphs](#) with 9 vertices and 11 edges.

**3254** =  $33 + 2222 + 555 + 444$ .

**3255** is a value of  $n$  for which  $\varphi(n) = \varphi(n+1)$ .

**3259** =  $33 + 2222 + 5 + 999$ .

**3262** is the number of [graphs](#) with 9 vertices that have 6 [automorphisms](#).

**3264** is the number of [partitions](#) of 49 into distinct parts.

**3265** is the smallest  $n$  for which  $34n$  contains only 0's and 1's.

**3267** = 12345 in base 7.

**3271** is the smallest number that can be written as the sum of 3 [triangular numbers](#) in 46 ways.

**3274** =  $303022_4 = 101044_5$ , each using 3 different digits exactly twice.

**3276** =  ${}_{28}\text{C}_3$ .

**3277** is a [Poulet number](#).

**3280** = 11111111 in base 3.

**3281** is the sum of consecutive [squares](#) in 2 ways.

**3282** is the sum of its [proper divisors](#) that contain the digit 4.

**3283** is the number of 3×3 sliding puzzle positions that require exactly 15 moves to solve starting with the hole on a side.

**3285** is the magic constant for a 9×9×9 [magic cube](#).

**3286** is the number of stable patterns with 16 cells in Conway's game of [Life](#).

**3290** is an enneagonal pyramidal number.

**3292** is the number of ways to tile a 4×27 rectangle with 4×1 rectangles.

**3294** is a value of  $n$  for which  $6n$  and  $7n$  together use each digit exactly once.

**3295** is the number of self-dual binary codes of length 32.

**3296** is the number of lines passing through at least 2 points of an 11×11 grid of points.

**3297** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**3298** is the number of [trees](#) with 7 vertices.

**3300** is the number of [groupoids](#) on 4 elements.

**3301** is a value of  $n$  for which the  $n^{\text{th}}$  [Fibonacci number](#) begins with the digits in  $n$ .

**3302** is the maximum number of pieces a [torus](#) can be cut into with 26 cuts.

**3303** is a centered octahedral number.

**3304** is the maximum number of regions a [cube](#) can be cut into with 27 cuts.

**3305** is the number of rectangles with corners on an  $10 \times 10$  grid of points.

**3306** is the number of [non-associative](#) closed [binary operations](#) on a set with 3 elements.

**3309** is the number of ways to break  $\{1, 2, 3, \dots, 16\}$  into sets with equal sums.

**3311** is the sum of the first 21 [squares](#).

**3313** is the smallest [prime](#) number where every digit  $d$  occurs  $d$  times.

**3318** has exactly the same digits in 3 different bases.

**3320** has a base 4 representation that ends with 3320.

**3321** has a base 4 representation that ends with 3321.

**3322** has a base 4 representation that ends with 3322.

**3323** has a base 4 representation that ends with 3323.

**3324** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every



postage from 1 to  $n$  can be paid for with at most 20 stamps.

**3325** is the smallest number that can not be written as the sum of 3 volumes of rectangular boxes with [integer](#) dimensions less than 13.

**3326** is the smallest integer ratio of a 17-digit number to its product of digits.

**3329** is a [Padovan number](#).

**3330** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $2n-1$  and  $2n+1$ .

**3331** is the number of [monoids](#) of order 7 with 3 [idempotents](#).

**3333** is a [repdigit](#).

**3334** is the number of [12-iamonds](#).

**3335** is the smallest number whose [square](#) contains 4 consecutive 2's.

**3337** has a [cube](#) with only odd digits.

**3338** is a member of the [Fibonacci](#)-type sequence starting with 3 and 7.

**3339** is a value of  $n$  for which  $\sigma(n) = 3\phi(n)$ .

**3340** =  $3333 + 3 + 4 + 0$ .

**3341** =  $3333 + 3 + 4 + 1$ .

**3342** =  $3333 + 3 + 4 + 2$ .

**3343** =  $3333 + 3 + 4 + 3$ .

**3344** =  $3333 + 3 + 4 + 4$ .

**3345** =  $3333 + 3 + 4 + 5$ .

**3346** =  $3333 + 3 + 4 + 6$ .

**3347** =  $3333 + 3 + 4 + 7$ .

**3348** =  $3333 + 3 + 4 + 8$ .

**3349** =  $3333 + 3 + 4 + 9$ .

**3358** is the sum of the [squares](#) of the first 11 [primes](#).

**3360** =  $_{16}P_3$ .

**3361** is the number of quasi-[triominoes](#) that fit inside a  $12 \times 12$  grid.

**3362** has a [square](#) whose digits each occur twice.

**3363** is a number  $n$  for which  $n^2 + 1$  is double another square.

**3366** =  $(1^9 + 2^9 + 3^9) / (1 \times 2 \times 3)$ .

**3367** is the smallest number which can be written as the difference of 2 [cubes](#) in 3 ways.

**3368** is the number of ways that 5 non-attacking [bishops](#) can be placed on a  $5 \times 5$  chessboard.

**3369** is a [Kaprekar constant](#) in base 4.

**3375** is a [Friedman number](#).

**3376** is the number of digits of the 23<sup>rd</sup> [Mersenne prime](#).

**3378** is a [Friedman number](#).

**3379** is a number whose [square](#) and [cube](#) use different digits.

**3380** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**3381** is the number of ways to 14-color the faces of a [tetrahedron](#).

**3382** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**3383** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**3386** has a [square](#) whose digits each occur twice.

**3390** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $2n-1$  and  $2n+1$ .

**3400** is a [truncated tetrahedral number](#).

**3402** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**3403** is a [triangular number](#) that is the product of two [primes](#).

**3404** is the number of binary [partitions](#) of 38.

**3405** is a structured great rhombicosidodecahedral number.

$$3408 = 3^3 + 4^4 + 5^5.$$

**3410** is a truncated square pyramid number.

**3411** is the number of inequivalent asymmetric [Ferrers graphs](#) with 31 points.

$$3412 = 2^2 + 3^3 + 4^4 + 5^5.$$

$$3413 = 1^1 + 2^2 + 3^3 + 4^4 + 5^5.$$

**3417** is a [hexagonal pyramidal number](#).

**3420** is the order of a [non-cyclic simple group](#).

**3427** is a member of the [Fibonacci](#)-type sequence starting with 1 and 5.

**3431** is the number of inequivalent [Ferrers graphs](#) with 31 points.

**3432** is the 7<sup>th</sup> [central binomial coefficient](#).

**3433** is a [narcissistic number](#) in base 6.

$$3435 = 3^3 + 4^4 + 3^3 + 5^5.$$

**3439** is a [rhombic dodecahedral number](#).

**3440** is the closest [integer](#) to  $20^e$ .

**3444** is a [stella octangula number](#).

**3447** is the smallest value of  $n$  for which  $2n$  and  $5n$  together use the digits 1-9 exactly once.

**3451** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{31}$ .

**3456** has digits in [arithmetic sequence](#).

**3457** is a [Proth prime](#).

**3459** has a 6<sup>th</sup> root that starts 3.88888....

**3461** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**3462** is the number of integer solutions to  $1 = 1/x_1 + 1/x_2 + 1/x_3 + 1/x_4 + 1/x_5 + 1/x_6$  for  $1 \leq x_1 \leq x_2 \leq x_3 \leq x_4 \leq x_5 \leq x_6$ .

**3465** = 15!!!!.

**3468** =  $68^2 - 34^2$ .

**3476** is a value of  $n$  for which  $n!! - 1$  is [prime](#).

**3478** has the property that dropping its first and last digits gives its largest [prime factor](#).

**3480** is a [Perrin number](#).

**3482** is the smallest number  $n$  so that  $n^2$  is 1 more than 43 times a [square](#).

**3485** is the maximum value of  $n$  so that there exist 8 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 8 stamps.

**3486** has a [square](#) that is formed by 3 [squares](#) that overlap by 1 digit.

**3487** is the number of squares in a  $14 \times 14$  grid of squares with diagonals drawn.

**3488** has a  $5^{\text{th}}$  root that starts 5.11111....

**3489** is the smallest number whose [square](#) has the first 3 digits the same as the last 3 digits.

**3492** is the number of labeled [semigroups](#) of order 4.

**3498** is a number whose sum of [divisors](#) is a  $5^{\text{th}}$  power.

**3499** in hexadecimal spells the word DAB.

**3501** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**3502** is the number of  $3 \times 3 \times 3$  [Rubik's cube](#) positions that can result from 3 quarter or half turns.

**3507** is a value of  $n$  for which  $n! - 1$  is [prime](#).

**3510** = 6666 in base 8.

**3511** is the largest known [Wieferich prime](#).

**3521** =  $3333 + 55 + 22 + 111$ .

**3522** is the sum of its [proper divisors](#) that contain the digit 7.

**3525** is a [Pentanacci number](#).

**3527** is the number of ways to fold a strip of 10 stamps.

**3528** is an [Achilles number](#).

**3531** is a value of  $n$  for which  $\varphi(n) = \varphi(n-2) - \varphi(n-1)$ .

**3534** is the number of 5-step self-avoiding walks on the cubic lattice.

**3536** is a [heptagonal pyramidal number](#).

**3539** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**3541** is the smallest number whose [reciprocal](#) has period 20.

**3542** is the number of ways to write 16 as an ordered sum of positive [integers](#), where adjacent numbers are different.

**3543** has a [cube](#) containing only 3 different digits.

**3552** is a value of  $n$  for which  $n \varphi(n)$  is a [palindrome](#).

**3554** +  $\sigma(3554) = 8888$ .

**3563** is a house number.

**3564** divides  $1^1 + 2^2 + 3^3 + \cdots + 3564^{3564}$ .

**3570** is both a [triangular number](#) and 6 times a [triangular number](#).

**3571** is the 17<sup>th</sup> [Lucas number](#).

**3575** is the smallest  $n$  for which  $28n$  contains only 0's and 1's.

**3577** is a [Kaprekar constant](#) in base 2.

**3579** has digits in [arithmetic sequence](#).

**3581** is the smallest  $n$  for which  $31n$  contains only 0's and 1's.

**3583** is the smallest number requiring an [addition chain](#) of length 16.

**3584** is not the sum of 4 non-zero [squares](#).

**3585** has a 10<sup>th</sup> power that contains the same digits as  $9036^9$ .

**3588** is the maximum number of regions space can be divided into by 23 [spheres](#).

**3593** is a [prime](#) that is the average of two 4<sup>th</sup> powers.

**3594** is the smallest number whose 9<sup>th</sup> power has 32 digits.

**3596** is the number [permutations](#) of  $\{1,2,3,\dots,19\}$  where adjacent numbers differ by no more than 2.



**3599** is the product of [twin primes](#).

**3600** is the order of a [perfect group](#).

**3605** is a centered tetrahedral number.

**3607** is a [prime factor](#) of 123456789.

**3609** is the number of [multigraphs](#) with 22 vertices and 4 edges.

**3610** is a value of  $n$  for which  $n! - 1$  is [prime](#).

**3612** is a [narcissistic number](#) in base 7.

**3613** is a [narcissistic number](#) in base 7.

**3616** = 1111 in base 15.

**3620** is the [trinomial coefficient](#)  $T(16,12)$ .

**3622** is the number of ways of placing 26 points on a  $13 \times 13$  grid so that no 3 points are on a line.

**3623** times the 3623<sup>th</sup> [prime](#) is a [palindrome](#).

**3624** is the first of five consecutive [squareful](#) numbers.

**3626** is a member of the [Fibonacci](#)-type sequence starting with 1 and 9.

**3628** is the number of ways to place 3 non-attacking queens on a 7×7 chessboard.

**3630** appears inside its 4<sup>th</sup> power.

**3632** is a value of  $n$  for which  $n \varphi(n)$  is a [palindrome](#).

**3635** has a [square](#) with the first 3 digits the same as the next 3 digits.

**3638** is the number of ways to stack 26 pennies in contiguous rows so that each penny lies on the table or on two pennies.

**3640** = 13<sup>!!!</sup>.

**3641** is an hexagonal prism number.

**3645** is the maximum [determinant](#) of a binary 12×12 matrix.

**3648** is the number of subsets of {1,2,3,...,15} that have a sum divisible by 9.

**3650** is the number of binary [cube-free words](#) of length 19.

**3652** is the number of fixed [7-hexes](#).

**3654** = <sub>29</sub>C<sub>3</sub>.

**3655** is the sum of consecutive [squares](#) in 2 ways.

**3657** is a structured truncated octahedral number.

**3658** is the number of [forests](#) with 13 vertices.

**3660** is the number of [connected graphs](#) with 6 vertices and 6 edges.

**3663** is a [palindrome](#) in base 8 and in base 10.

**3664** is the number of [graphs](#) with 10 vertices and 9 edges.

**3665** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**3671** is the number of [9-abolos](#).

**3673** is the number of ways a  $8 \times 1$  rectangle can be surrounded by  $8 \times 1$  rectangles.

**3678** has a [square](#) comprised of the digits 1-8.

**3679** is the number of ways to stack 17 pennies in a line so that each penny lies on the table or on two pennies.

**3681** is the maximum number of pieces a [torus](#) can be cut into with 27 cuts.

**3683** is the maximum number of regions a [cube](#) can be cut into with 28 cuts.

**3684** is a [Keith number](#).

**3685** is a strong [Friedman number](#).

**3686** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**3690** is the number of [trees](#) on 29 vertices with [diameter](#) 4.

**3691** is a number  $n$  for which  $n^2+1$  is triple another square.

**3696** is the number of ways to color the vertices of a square with 11 colors, up to rotation.

**3697** is the smallest number in base 6 whose [square](#) contains the same digits in the same proportion.

**3698** has a [square](#) comprised of the digits 0-7.

**3699** is the [rectilinear crossing number](#) of [complete graph](#)  $K_{24}$

**3700** is the sum of the [squares](#) of 4 consecutive [primes](#).

**3702** =  $3 + 33 + 333 + 3333$ .

**3703** is the smallest number that can not be formed using the digit 1 at most 26 times, together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**3705** is the [generalized Catalan number](#)  $C(16,4)$ .

**3709** is a value of  $n$  for which  $2n$  and  $7n$  together use the digits 1-9 exactly once.

**3710** is a number whose sum of [divisors](#) is a  $5^{\text{th}}$  power.

**3711** is the number of [multigraphs](#) with 6 vertices and 10 edges.

**3714** is the number of [graphs](#) with 8 vertices and [edge-connectivity](#) 1.

**3715** is a member of the [Fibonacci](#)-type sequence starting with 3 and 8.

**3718** is the number of [partitions](#) of 28.

**3720** =  $225 + 226 + \dots + 240 = 241 + 242 + \dots + 255$ .

**3721** is the number of [partitions](#) of 46 in which no part occurs only once.

**3723** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**3728** is the smallest number whose 7<sup>th</sup> power has 25 digits.

**3729** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**3731** is a dodecagonal pyramidal number.

**3733** is a [right-truncatable prime](#).

**3734** is the number of binary [partitions](#) of 39.

**3739** is a [right-truncatable prime](#).

**3740** is the sum of consecutive [squares](#) in 2 ways.

**3743** is the number of [polyaboloes](#) with 9 half [squares](#).

**3745** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**3747** is the smallest number whose 9<sup>th</sup> power contains exactly the same digits as another 9<sup>th</sup>

power.

**3750** is the first of four consecutive [squareful](#) numbers.

**3751** has the same digits as the 3751<sup>st</sup> [prime](#).

**3752** is a cubic star number.

**3753** has a [cube](#) that is the sum of 3 positive [cubes](#).

**3760** is a substring of any power of itself.

**3761** is the first year of the modern Hebrew calendar.

**3762** is the number of [bicentered trees](#) with 15 vertices.

**3763** is the largest  $n$  so that  $\mathbb{Q}(\sqrt{n})$  has [class number](#) 6.

**3765** is the number of [series-reduced planted trees](#) with 18 vertices.

**3767** is the smallest number with [complexity](#) 28.

**3771** is a value of  $n$  for which  $4n$  and  $7n$  together use each digit exactly once.

**3773** is a structured great rhombicuboctahedral number.

**3777** is a [Pentanacci](#)-like number starting from 1, 1, 1, 1, and 1.

**3780** is a highly abundant number.

**3784** has a factorization using the same digits as itself.

**3786** =  $3^4 + 7^4 + 8 + 6^4$ .

**3788** is the number of [9-hexes](#) that tile the plane.

**3789** divides the sum of the digits of 3789!.

**3791** is the number of symmetric [plane partitions](#) of 30.

**3792** occurs in the middle of its [square](#).

**3793** is a [right-truncatable prime](#).

**3795** is the sum of the first 22 [squares](#).

**3797** is a [right-truncatable prime](#).

**3798** is a value of  $n$  for which  $2n$  and  $9n$  together use the digits 1-9 exactly once.

**3802** is the nearest integer to  $(5 + 1/5)^5$ .

**3803** is the largest [prime factor](#) of 123456789.

**3804** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**3807** and its successor are both divisible by  $4^{\text{th}}$  powers.

**3808** is the [generalized Catalan number](#)  $C(12,5)$ .

**3810** is the number of ways to place a non-attacking white and black pawn on a 9×9 chessboard.

**3811** is the number of [polycubes](#) containing 8 [cubes](#), if mirror images are not counted as different.

**3812** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 21 stamps.

**3813** is the number of [partitions](#) of 47 in which no part occurs only once.

**3816** is a truncated cube number.

**3822** is the number of triangles of any size contained in the triangle of side 24 on a triangular grid.

**3824** is the number of lines through exactly 2 points of a 12×12 grid of points.

**3825** is a [Kaprekar constant](#) in base 2.

**3827** is a [composite number](#)  $n$  that divides the  $(n+1)^{\text{st}}$  [Fibonacci number](#).

**3829** is the sum of the first 16 numbers that have digit sum 16.

**3832** is the number of fixed [6-kings](#).

**3834** is the number of [weakly connected directed graphs](#) with 4 vertices.

**3836** is the maximum number of [inversions](#) in a [permutation](#) of length 7.



**3840** = 10!!.

**3841** is the number of interior intersections when all the diagonals of a [regular](#) 20-gon are drawn.

**3843** is a value of  $n$  for which  $7n$  and  $9n$  together use each digit exactly once.

**3846** is the number of [Hamiltonian cycles](#) of a  $4 \times 11$  rectangle [graph](#).

**3849** has a [square](#) with the first 3 digits the same as the next 3 digits.

**3850** is a structured octagonal anti-diamond number.

**3855** is an odd number for which a [regular](#) polygon is [constructible](#) by straightedge and compass.

**3857** is the number of 6-dimensional [partitions](#) of 7.

**3859** is a member of the [Fibonacci](#)-type sequence starting with 2 and 9.

**3861** is the smallest number whose  $4^{\text{th}}$  power starts with 5 identical digits.

**3864** is a strong [Friedman number](#).

**3865** is a [Smith brother](#).

**3871** is the sum of the [cubes](#) of 3 consecutive [primes](#).

**3872** is an [Achilles number](#).

**3873** is a [Kaprekar constant](#) in base 4.

**3876** =  $19C_4$ .

**3882** is the sum of its [proper divisors](#) that contain the digit 4.

**3883** is the smallest number whose [cube](#) contains 4 consecutive 6's.

**3884** has a 5<sup>th</sup> root that starts 5.2222....

**3888** is an [Achilles number](#).

**3889** +  $\phi(3889) = 7777$ .

**3893** is the number of [3-regular connected planar graphs](#) with 18 vertices.

**3894** is an [octahedral number](#).

**3895** is the number of intersections when all the diagonals of a [regular](#) 19-gon are drawn.

**3896** is the number of ways to place 3 non-attacking [bishops](#) on a 6×6 chessboard.

**3897** divides the sum of the digits of 3897!.

**3900** has a base 2 representation that is two copies of its base 5 representation concatenated.

**3901** has a base 2 representation that ends with its base 5 representation.

**3903** is a [Lucas 7-step number](#).

**3906** = 111111 in base 5.

**3907** = 15628 / 4, and each digit is contained in the equation exactly once.

**3910** is the number of 3×3 sliding puzzle positions that require exactly 28 moves to solve starting with the hole in a corner.

**3911** and its reverse are [prime](#), even if we append or prepend a 3 or 9.

**3912** is a value of n for which 5n and 7n together use each digit exactly once.

**3913** is a [Huay rhombic dodecahedral number](#).

**3916** is a [triangular number](#) whose internal digits are [triangular](#) and whose external digits are [triangular](#).

**3920** = (5+3) × (5+9) × (5+2) × (5+0).

**3923** is a factor of 3924392539263927.

**3925** is a [centered cube number](#).

**3926** is the 12<sup>th</sup> [open meandric number](#).

**3927** has an 8<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**3928** is the closest [integer](#) to 21<sup>e</sup>.

**3929** is the number of [integers](#) with [complexity](#) 29.

**3937** is a [Kaprekar constant](#) in base 2.

**3938** is the number of  $4 \times 4$  sliding puzzle positions that require exactly 11 moves to solve starting with the hole in a corner.

**3939** is a structured truncated tetrahedral number.

**3942** is a value of  $n$  for which  $n$  and  $4n$  together use each digit 1-9 exactly once.

**3952** has a sum of digits equal to its largest [prime factor](#).

**3956** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 15 dimensional [hypercube](#).

**3957** is the number of ways to stack 32 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**3960** is a highly abundant number.

**3967** is the smallest number whose  $12^{\text{th}}$  power contains exactly the same digits as another  $12^{\text{th}}$  power.

**3968** and its successor are both divisible by  $4^{\text{th}}$  powers.

**3969** is a [Kaprekar constant](#) in base 2.

**3972** is a strong [Friedman number](#).

**3973** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**3977** has the property that dropping its first and last digits gives its largest [prime factor](#).

**3978** is the number of ways to place 30 points on a 15×15 grid so that [no 3 points are on a line](#).

**3979** is the number of [centered trees](#) with 15 vertices.

**3980** is the smallest multiple of 20 whose digits add to 20.

**3982** is the smallest number whose 5<sup>th</sup> power has 18 digits.

**3983** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**3984** is a [Heptanacci number](#).

**3985** = 3333 + 9 + 88 + 555.

**3986** has an 8<sup>th</sup> root that starts 2.81881881....

**3987** is the closest [integer](#) to  $14^\pi$ .

**3991** is the number of labeled graded [partially ordered sets](#) with 5 elements.

**3993** is a structured snub cubic number.

**3994** is the number of [transitive relations](#) on 4 labeled nodes.

**3996** =  $(6^6 + 6^7 + 6^8 + 6^9) / (6 \times 7 \times 8 \times 9)$ .

**3999** is the smallest number whose digits add to 30.

**4000** has a [cube](#) that contains only even digits.

**4002** has a [square](#) with the first 3 digits the same as the next 3 digits.

**4004** =  $(10 \times 11 \times 12 \times 13 \times 14) / (10 + 11 + 12 + 13 + 14)$  .

**4005** is a [triangular number](#) whose internal digits are [triangular](#) and whose external digits are [triangular](#).

**4006** =  ${}_{14}\text{C}_4 + {}_{14}\text{C}_0 + {}_{14}\text{C}_0 + {}_{14}\text{C}_6$ .

**4008** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**4010** is the magic constant of a 20×20 magic square.

**4011** is the sum of the [squares](#) of 3 consecutive [primes](#).

**4013** is a [prime factor](#) of 111111111111111111111111111111111111.

**4019** is a [prime](#) that remains [prime](#) if any digit is deleted.

**4023** is the number of ways to tile a 3×23 rectangle with 3×1 rectangles.

**4029** is the number of regions formed when all diagonals are drawn in a [regular](#) 19-gon.

**4030** is a [weird number](#).

**4031** is the sum of the [cubes](#) of the first 6 [primes](#).

4032 is the number of [connected bipartite graphs](#) with 10 vertices.

4033 is a [Poulet number](#).

4037 is a member of the [Fibonacci](#)-type sequence starting with 1 and 6.

4040 is an enneagonal pyramidal number.

4047 is a [hexagonal pyramidal number](#).

4048 is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

4050 has the property that dropping its first and last digits gives its largest [prime factor](#).

4051 is the number of [partitions](#) of 6 items into ordered lists.

4052 is the closest integer to  $\sinh(9)$ .

4053 has a [cube](#) that contains only digits 5 and larger.

4055 is the smallest number whose [cube](#) contains six 6's.

4056 is the number of possible rook moves on a  $13 \times 13$  chessboard.

4059 is the sum of 3 consecutive [cubes](#).

4060 =  ${}_{30}\text{C}_3$ .

**4062** is the smallest number with the property that its first 8 multiples contain the digit 2.

**4063** is a [Tribonacci](#)-like number starting from 1, 1, and 1.

**4064** is a value of  $n$  for which  $\sigma(n) = \sigma(\text{reverse}(n))$ .

**4068** is the number of ways to write 26 as the ordered sum of positive squares.

**4071** is the number of ways to color the vertices of a triangle with 23 colors, up to rotation.

**4074** is a value of  $n$  for which  $\sigma(n) = 2\text{reverse}(n)$ .

**4077** has a [square](#) whose digits each occur twice.

**4078** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**4080** =  $_{17}P_3$ .

**4083** is the number of ways 12 people can line up so that only one person has a taller person in front of him.

**4086** is a permutation of the sum of its [proper divisors](#).

**4087** is the product of two consecutive [primes](#).

**4088** is the maximum number of pieces a [torus](#) can be cut into with 28 cuts.

**4089** is a centered octahedral number.



**4090** is the maximum number of regions a [cube](#) can be cut into with 29 cuts.

**4093** = 28651 / 7, and each digit is contained in the equation exactly once.

**4094** is the [Entringer number](#) E(8,2).

**4095** and its reverse are both differences of positive 4<sup>th</sup> powers.

**4096** is the smallest number with 13 [divisors](#).

**4097** is the smallest number (besides 2) that can be written as the sum of two [cubes](#) or the sum of two 4<sup>th</sup> powers.

**4098** is the number of subsets of the 26<sup>th</sup> [roots of unity](#) that add to 1.

**4099** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**4100** = 5555 in base 9.

**4104** can be written as the sum of 2 [cubes](#) in 2 ways.

**4106** is a [Friedman number](#).

**4112** is the number of necklaces possible with 17 beads, each being one of 2 colors.

**4116** is the number of necklaces (that can't be turned over) possible with 16 beads, each being one of 2 colors.

**4119** times the 4119<sup>th</sup> [prime](#) is a [palindrome](#).

**4120** has a [cube](#) with a digit sum larger than its 7<sup>th</sup> power.

**4121** is a number whose product of digits is equal to its sum of digits.

**4122** is the number of labeled [monoids](#) of order 5 with fixed identity.

**4124** is the number of binary [partitions](#) of 40.

**4128** is the smallest number with the property that its first 10 multiples contain the digit 2.

**4132** is the number of [connected 3-regular bipartite graphs](#) with 22 vertices.

**4140** is the 8<sup>th</sup> [Bell number](#).

**4141** =  $4141_5 + 4141_7 + 4141_8$ .

**4147** is a value of  $n$  for which  $\phi(n) = \phi(\text{reverse}(n))$ .

**4149** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**4150** =  $4^5 + 1^5 + 5^5 + 0^5$ .

**4151** =  $4^5 + 1^5 + 5^5 + 1^5$ .

**4152** =  $4^5 + 1^5 + 5^5 + 2$ .

**4153** =  $4^5 + 1^5 + 5^5 + 3$ .

**4154** =  $4^5 + 1^5 + 5^5 + 4$ .

**4155** =  $4^5 + 1^5 + 5^5 + 5$ .

**4156** =  $4^5 + 1^5 + 5^5 + 6$ .

**4157** =  $4^5 + 1^5 + 5^5 + 7$ .

**4158** =  $4^5 + 1^5 + 5^5 + 8$ .

**4159** =  $4^5 + 1^5 + 5^5 + 9$ .

**4160** =  $4^3 + 16^3 + 0^3$ .

**4161** =  $4^3 + 16^3 + 1^3$ .

**4163** is the number of inequivalent asymmetric [Ferrers graphs](#) with 32 points.

**4167** is a [Friedman number](#).

**4175** has a [square](#) comprised of the digits 0-7.

**4176** has an 8<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**4180** is the sum of the first 17 [Fibonacci numbers](#).

**4181** is the first [composite number](#) in the [Fibonacci sequence](#) with a [prime](#) index.

**4183** is a [narcissistic number](#) in base 7.

**4185** is the smaller number in a [Ruth-Aaron pair](#).

**4186** is a [hexagonal](#), 13-gonal, [triangular number](#).

**4187** is the smallest [Rabin-Miller pseudoprime](#) with an odd [reciprocal](#) period.

**4188** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**4191** is the number of [graphs](#) with 12 vertices and 10 edges.

**4192** is the larger number in a [Ruth-Aaron pair](#).

**4193** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 16 moves to solve starting with the hole on a side.

**4195** has a sum of [prime factors](#) that is equal to the sum of the [prime factors](#) of the two preceding numbers.

**4196** is the number of [3-regular bipartite graphs](#) with 22 vertices.

**4199** is the product of 3 consecutive [primes](#).

**4200** is divisible by its reverse.

**4202** =  $4202_5 + 4202_7 + 4202_8$ .

**4204** and the two numbers before it and after it are all products of exactly 3 [primes](#).

**4205** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**4207** is the number of [cubic graphs](#) with 16 vertices.

**4209** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{32}$ .

**4210** is the number of [graphs](#) with 10 vertices with [clique number](#) 7.

**4211** is a number whose product of digits is equal to its sum of digits.

**4215** is a centered dodecahedral number.

**4216** is an octagonal pyramidal number.

**4217** is the smallest number whose  $8^{\text{th}}$  power has 29 digits.

**4219** is a [Cuban prime](#).

**4220** is a number  $n$  for which the sum of the first  $n$  [composite numbers](#) is a [palindrome](#).

**4222** is the number of [13-hexes](#) with bilateral symmetry.

**4223** is the maximum number of  $12^{\text{th}}$  powers needed to sum to any number.

**4224** is a [palindrome](#) that is one less than a [square](#).

**4225** is the smallest number that can be written as the sum of two [squares](#) in 12 ways.

**4231** is the number of labeled [partially ordered sets](#) with 5 elements.

**4232** is the number of different products of subsets of the set  $\{1, 2, 3, \dots, 16\}$ .

4233 is a [heptagonal pyramidal number](#).

4235 has a [cube](#) that contains only digits 5 and larger.

4236 has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

4237 is the number of ordered sequences of coins totaling 30 cents.

4240 is a [Leyland number](#).

4243 = 444 + 22 + 444 + 3333.

4244 is the total number of digits in all the 4-digit primes.

4249 is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

4252 is the smallest number in base 8 to have 5 different digits.

4253 is the exponent of a [Mersenne prime](#).

4254 is the number of [7-drafters](#).

4255 is a centered tetrahedral number.

4257 is the number of triangles formed by connecting the diagonals of a regular 11-gon.

4258 is the sum of the digits of the 18<sup>th</sup> [Mersenne prime](#).

4260 is a value of  $n$  for which  $n+1$ ,  $2n+1$ ,  $3n+1$ , and  $4n+1$  are all [prime](#).

**4264** is a number whose sum of [squares](#) of the [divisors](#) is a [square](#).

**4267** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**4269** has a [cube](#) whose first few digits are 77799797....

**4276** is the number of (not necessarily distinct) sets of [Egyptian fractions](#) that sum to 1 with smallest fraction  $1/26$ .

**4278** does not occur in its [factorial](#) in base 2.

**4279** is the smallest [semiprime super Catalan number](#).

**4280** has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

**4283** is the smallest number with [complexity](#) 29.

**4285** is a structured hexagonal diamond number.

**4288** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**4290** is a value of  $n$  for which  ${}_n\text{C}_n$  is divisible by  $n^2$ .

**4291** is the number of necklaces possible with 6 beads, each being one of 6 colors.

**4293** has exactly the same digits in 3 different bases.

**4294** is a value of  $n$  for which  $\sigma(n) = \varphi(n) + \varphi(n-1) + \varphi(n-2)$ .

**4297** is the smallest [prime](#) that is followed by 29 [composite numbers](#).

**4300** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**4303** is the number of triangles of any size contained in the triangle of side 25 on a triangular grid.

**4305** has exactly the same digits in 3 different bases.

**4310** has exactly the same digits in 3 different bases.

**4311** is the largest number  $n$  known with the property that  $n \cdot 2^k$  is a [pseudoprime](#) for all  $k > 0$ .

**4312** is the smallest number whose  $10^{\text{th}}$  power starts with 7 identical digits.

**4320** =  $(6+4) \times (6+3) \times (6+2) \times (6+0)$ .

**4321** has digits in [arithmetic sequence](#).

**4324** is the sum of the first 23 [squares](#).

**4325** is a member of the [Fibonacci](#)-type sequence starting with 4 and 9.

**4329** is the only number  $n$  so that  $n$ ,  $2n$ ,  $4n$ , and  $6n$  together contain every digit 1-9 exactly twice.

**4330** is the number of [4-regular multigraphs](#) with 10 vertices.



4332 = 444 + 3333 + 333 + 222.

4333 has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

4335 = 444 + 3333 + 3 + 555.

4336 = 4 + 3333 + 333 + 666.

4337 is a value of n for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

4339 = 4 + 3333 + 3 + 999.

4340 is the number of 3×3 sliding puzzle positions that require exactly 27 moves to solve starting with the hole in the center.

4342 appears inside its 4<sup>th</sup> power.

4343 has the property that the sum of its [prime factors](#) is equal to the product of its digits.

4347 is a value of n for which 2n and 5n together use the digits 1-9 exactly once.

4348 is the number of ways of placing 24 points on a 12×12 grid so that no 3 points are on a line.

4352 has a [cube](#) that contains only even digits.

4355 =  $2^4 + 3^5 + 4^6$ .

4356 is two thirds of its reverse.

**4357** is the smallest number with the property that its first 5 multiples contain the digit 7.

**4359** is a [perfect totient number](#).

**4361** is the number of different [degree sequences](#) for graphs with 9 vertices.

**4364** is a value of  $n$  for which  $\sigma(n) = \sigma(n+1)$ .

**4365** is a value of  $n$  for which  $4n$  and  $9n$  together use each digit exactly once.

**4368** =  $16C_5$ .

**4369** is an odd number for which a [regular](#) polygon is [constructible](#) by straightedge and compass.

**4371** is a [Poulet number](#).

**4374** and its successor are both divisible by  $4^{\text{th}}$  powers.

**4375** is a [perfect totient number](#).

**4376** and its reverse are both differences of positive [cubes](#).

**4378** is the number of [partitions](#) of 38 that do not contain 1 as a part.

**4380** is the number of ways to place 2 non-attacking [bishops](#) on a  $10 \times 10$  chessboard.

**4381** is a [stella octangula number](#).

**4382** is the number of primitive sorting networks on 9 elements.

**4388** divides  $1^1 + 2^2 + 3^3 + \dots + 4388^{4388}$ .

**4390** is a house number.

**4392** is a value of  $n$  for which  $n$  and  $4n$  together use each digit 1-9 exactly once.

**4394** is a truncated square pyramid number.

**4396** =  $157 \times 28$  and each digit is contained in the equation exactly once.

**4398** is the number of subsets of  $\{1, 2, 3, \dots, 18\}$  that do not contain solutions to  $x + y = z$ .

**4402** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**4406** is the number of [divisors](#) of the 16<sup>th</sup> [perfect number](#).

**4408** is the number of [20-diamonds](#) with bilateral symmetry.

**4410** is a [Padovan number](#).

**4413** is the index of a [prime Euclid number](#).

**4418** is the number of 7-nons.

**4421** =  $7! - 6! + 5! - 4! + 3! - 2! + 1!$ .

**4422** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 15 stamps.

**4423** is the exponent of a [Mersenne prime](#).

**4424**  $2^5 + 3^5 + 4^5 + 5^5$ .

**4425** is the sum of the first five  $5^{\text{th}}$  powers.

**4430** is the [rectilinear crossing number](#) of [complete graph](#)  $K_{25}$

**4431** is the number of [graphs](#) with 8 vertices that have 2 [automorphisms](#).

**4434** is the sum of its [proper divisors](#) that contain the digit 7.

**4435** uses the same digits as  $\phi(4435)$ .

**4436** is the number of ways to place 4 non-attacking [knights](#) on a  $5 \times 5$  chessboard.

**4438** is the number of [15-hexes](#) with reflectional symmetry.

**4441** is the number of different solutions to  $\pm 1 \pm 2 \dots \pm 18 = 1$ .

**4442** is a value of  $n$  for which  $\sigma(n)$  is a [repdigit](#).

**4443** is a number  $n$  for which  $n^2 + 1$  is 10 times another square.

**4444** is a [repdigit](#).

4445 is the smallest number that can be written as the sum of 4 distinct positive [cubes](#) in 4 ways.

4447 is a [Cuban prime](#).

4449 has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

4455 is the number of [permutations](#) of 12 items that fix 8 elements.

4457 is the closest [integer](#) to  $22^e$ .

4460 is the number of 10-ominoes without holes.

4461 is the number of asymmetrical 10-ominoes.

4465 +  $\varphi(4465) = 7777$ .

4467 is the number of terms in the 16<sup>th</sup> derivative of  $f(f(f(x)))$ .

4473 is a value of  $n$  for which  $\sigma(n) = 2\text{reverse}(n)$ .

4475 =  $6^2 + 7^3 + 8^4$ .

4478 is the number of [fullerenes](#) with 66 carbon atoms.

4480 is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

4481 is a [prime](#) that is the average of two 4<sup>th</sup> powers.

**4485** is the number of 3×3 sliding puzzle positions that require exactly 16 moves to solve starting with the hole in a corner.

**4488** = 256 + 257 + . . . + 272 = 273 + 274 + . . . + 288.

**4489** is a [square](#) whose digits are non-decreasing.

**4493** is the number of ways to divide a 11×11 grid of points into two sets using a straight line.

**4495** =  ${}_{31}\text{C}_3$ .

**4498** is a value of n for which n, 2n, 3n, and 4n all use the same number of digits in [Roman numerals](#).

**4500** is the number of regions formed when all diagonals are drawn in a [regular](#) 20-gon.

**4502** is the number of unit [interval graphs](#) with 10 vertices.

**4503** is the largest number that is not the sum of 4 or fewer [squares](#) of [composites](#).

**4505** is a [Zeisel number](#).

**4506** is the sum of its [proper divisors](#) that contain the digit 5.

**4510** = 4444 + 55 + 11 + 0.

**4511** = 4444 + 55 + 11 + 1.

**4512** = 4444 + 55 + 11 + 2.

4513 = 4444 + 55 + 11 + 3.

4514 = 4444 + 55 + 11 + 4.

4515 = 4444 + 55 + 11 + 5.

4516 = 4444 + 55 + 11 + 6.

4517 = 4444 + 55 + 11 + 7.

4518 = 4444 + 55 + 11 + 8.

4519 = 4444 + 55 + 11 + 9.

4520 is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of 20<sup>th</sup> [roots of unity](#).

4522 is the number of non-intersecting rook paths joining opposite corners of a 8×3 chessboard.

4523 has a [square](#) in base 2 that is [palindromic](#).

4524 is the maximum number of pieces a [torus](#) can be cut into with 29 cuts.

4526 is the maximum number of regions a [cube](#) can be cut into with 30 cuts.

4527 is a value of n for which n and 7n together use each digit 1-9 exactly once.

4530 has the property that the sum of the [factorials](#) of its digits is its largest [prime factor](#).

**4535** is the number of unlabeled [topologies](#) with 7 elements.

**4536** is the [Stirling number of the first kind](#)  $s(9,6)$ .

**4541** has a [square](#) with the first 3 digits the same as the next 3 digits.

**4542** is the number of [trees](#) on 20 vertices with [diameter](#) 5.

**4544** is a [Kaprekar number](#) for [cubes](#).

**4547** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**4548** is the sum of its [proper divisors](#) that contain the digit 7.

**4550** is the [Stirling number of the second kind](#)  $S(15,13)$ .

**4552** has a [square](#) with the first 3 digits the same as the next 3 digits.

**4556** is the [trinomial coefficient](#)  $T(17,13)$ .

**4558** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**4562** is the number of [divisors](#) of the 17<sup>th</sup> [perfect number](#).

**4563** is an [Achilles number](#).

**4565** is the number of [partitions](#) of 29.

**4567** has digits in [arithmetic sequence](#).



**4576** is a [truncated tetrahedral number](#).

**4579** is an [octahedral number](#).

**4582** is the number of [partitions](#) of 52 into distinct parts.

**4583** is a value of  $n$  for which one less than the product of the first  $n$  [primes](#) is [prime](#).

**4589** is the index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

**4591** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**4600** is a decagonal pyramidal number.

**4604** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**4607** is a [Woodall number](#).

**4608** is the number of ways to place 2 non-attacking kings on a  $10 \times 10$  chessboard.

**4609** is a [Cullen number](#).

**4610** is a [Perrin number](#).

**4613** is the number of [graphs](#) with 10 edges.

**4614** is the number of ways to stack 27 pennies in contiguous rows so that each penny lies on the table or on two pennies.

**4615** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**4616** has a [square](#) comprised of the digits 0-7.

**4619** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**4620** is the largest order of a [permutation](#) of 30 or 31 elements.

**4621** =  $\pi(4 \times 6 \times 2 \times 1 \times (4 + 6 + 2 + 1))$ .

**4622** is the number of [12-ominoes](#) that contain 1 hole.

**4623** is a value of  $n$  for which  $\sigma(n) = 2\text{reverse}(n)$ .

**4624** =  $4^4 + 4^6 + 4^2 + 4^4$ .

**4625** is the number of [trees](#) on 16 vertices with [diameter](#) 7.

**4628** is a [Friedman number](#).

**4631** has a [cube](#) with only odd digits.

**4640** is the number of different [score sequences](#) of an 11-team round robin tournament.

**4641** is a [rhombic dodecahedral number](#).

**4642** is the smallest number whose [cube](#) has 11 digits.

**4644** is a value of  $n$  for which  $7n$  and  $9n$  together use each digit exactly once.

**4645** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**4647** is a member of the [Fibonacci](#)-type sequence starting with 1 and 7.

**4649** has a 9<sup>th</sup> root that starts 2.55555....

**4650** is the maximum number of regions space can be divided into by 25 [spheres](#).

**4652** is the number of labeled [connected graphs](#) with 6 vertices that have [chromatic number](#) 4.

**4653** is a value of n for which n and 6n together use each digit 1-9 exactly once.

**4655** is the number of [10-ominoes](#).

**4657** is a number that does not have any digits in common with its [cube](#).

**4662** is the number of ways to place 2 non-attacking [knights](#) on a 10×10 chessboard.

**4663** is the number of [12-ominoes](#) that contain holes.

**4665** = 33333 in base 6.

**4666** is the number of tilted rectangles with vertices in a 13×13 grid.

**4672** is a permutation of the sum of its [proper divisors](#).

**4675**  $2^4 + 3^4 + 4^4 + 5^4 + 6^4 + 7^4$ .

**4676** is the sum of the first seven 4<sup>th</sup> powers.

**4680** is a value of  $n$  for which  $n$ ,  $n^2$ , and  $n^3$  have the same digit sum.

**4681** = 11111 in base 8.

**4682** is the number of subsets of  $\{1,2,3,\dots,16\}$  that have a sum divisible by 14.

**4683** is the number of orderings of 6 objects with ties allowed.

**4684** is the number of subsets of  $\{1,2,3,\dots,15\}$  that have a sum divisible by 7.

**4685** is the number of [anisohedral 15-hexes](#).

**4686** is the denominator of the 70<sup>th</sup> [Bernoulli number](#).

**4687** is a value of  $n$  for which  $\sigma(\varphi(n)) = 3\sigma(n)$ .

**4688** is [2-automorphic](#).

**4689** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**4691** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**4695** are the first 4 digits of  $4^{4695}$ .

**4697** is a value of  $n$  for which  $\varphi(n) = \varphi(\text{reverse}(n))$ .

**4698** is the smallest number so that it and its reverse are divisible by 54.

**4705** is the sum of consecutive [squares](#) in 2 ways.

**4709** is the number of symmetric [plane partitions](#) of 31.

**4713** is a value of  $n$  such that the  $n^{\text{th}}$  [Cullen number](#) is [prime](#).

**4714** is the smallest number whose [square](#) begins with four 2's.

**4720** is a structured truncated cubic number.

**4722** is the number of lines passing through at least 2 points of an  $12 \times 12$  grid of points.

**4723** is the index of a [prime Fibonacci number](#).

**4725** is an odd [abundant number](#).

**4726** is the smallest number whose [cube](#) contains 5 consecutive 5's.

**4727** is the sum of the [squares](#) of the first 12 [primes](#).

**4730** is the number of [multigraphs](#) with 5 vertices and 13 edges.

**4732** is a number that does not have any digits in common with its [cube](#).

**4734** is the sum of its [proper divisors](#) that contain the digit 7.

**4735** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**4738** is a [Menage number](#).

**4740** is the [trinomial coefficient](#)  $T(10,3)$ .

4741 is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

4743 is a value of  $n$  for which  $2n$  and  $5n$  together use the digits 1-9 exactly once.

4748 is a value of  $n$  for which  $\sigma(n) = \varphi(n) + \varphi(n-1) + \varphi(n-2)$ .

4750 is a [hexagonal pyramidal number](#).

4751 is the starting location of 8888 in the decimal expansion of  $\pi$ .

4752 =  $(4+4) \times (4+7) \times (4+5) \times (4+2)$ .

4755 has a [cube](#) whose digits occur with the same frequency.

4757 is the number of ordered [partitions](#) of 23 into distinct parts.

4758 does not occur in its [factorial](#) in base 2.

4760 is the sum of consecutive [squares](#) in 2 ways.

4761 is the number of subsets of  $\{1,2,3,\dots,15\}$  that have an [integer](#) average.

4762 is the smallest number not a power of 10 whose [square](#) contains the same digits.

4764 is an hexagonal prism number.

4766 is the number of [rooted trees](#) with 12 vertices.

4769 is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**4776** is a structured pentagonal hexacontahedral number.

**4780** has a [square](#) whose digits each occur twice.

**4781** is the number of (not necessarily distinct) sets of [Egyptian fractions](#) that sum to 1 with smallest fraction  $1/20$ .

**4784** has a sum of digits equal to its largest [prime factor](#).

**4785** has a [square](#) that is the sum of a [cube](#) and a  $4^{\text{th}}$  power.

**4787** is a value of  $n$  for which one more than the product of the first  $n$  [primes](#) is [prime](#).

**4788** is a [Keith number](#).

**4793** =  $4444 + 7 + 9 + 333$ .

**4797** is a cubic star number.

**4798** is a value of  $n$  for which  $n!!! + 1$  is [prime](#).

**4801** is a number  $n$  for which  $n^2 - 1$  is 6 times another square.

**4802** can be written as the sum of 2 or 3 positive  $4^{\text{th}}$  powers.

**4804** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**4807** is the smallest quasi-Carmichael number in base 10.

**4815** is the number of ways to stack 33 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**4819** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**4823** is the number of triangles of any size contained in the triangle of side 26 on a triangular grid.

**4831** is the smallest [prime](#) so that it and the next 2 [primes](#) all end in 1.

**4832** is a number whose [square](#) contains the same digits.

**4835** is the number of [anisohedral 14-hexes](#).

**4843** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**4845** =  ${}_{20}C_4$ .

**4848** is the number of [quaternary square-free words](#) of length 8.

**4850** is a [Wedderburn-Etherington number](#).

**4851** is a [pentagonal pyramidal number](#).

**4852** is the sum of the [squares](#) of 4 consecutive [primes](#).

**4854** does not occur in its [factorial](#) in base 2.

**4860** is the order of a [perfect group](#).



4862 is the 9<sup>th</sup> [Catalan number](#).

4863 is the smallest number that cannot be written as the sum of 273 8<sup>th</sup> powers.

4866 is the number of [partitions](#) of 48 in which no part occurs only once.

4869 is a value of n for which 3n and 8n together use each digit exactly once.

4875 is the number of [graphs](#) with 10 vertices and 3 cycles.

4876 divides the sum of the first 681 [composite numbers](#).

4877 is the largest [prime factor](#) of 87654321.

4878 is the number of [alternating knots](#) with 13 [crossings](#).

4879 = 238 + 0 + 4641 and has the [square](#) 23804641.

4889  $2^6 + 3^6 + 4^6$ .

4890 is a [narcissistic number](#) in base 5.

4891 is a [narcissistic number](#) in base 5.

4893 is a value of n for which 2n and 7n together use the digits 1-9 exactly once.

4895 is the product of two consecutive [Fibonacci numbers](#).

4896 =  $18P_3$ .

4899 is the sum of the [squares](#) of 3 consecutive [primes](#).

4900 is the only non-trivial number which is both [square](#) and [square pyramidal](#).

4901 has a base 3 representation that begins with its base 7 representation.

4902 is the starting location of 2222 in the decimal expansion of [π](#).

4905 is the sum of all the 2-digit numbers.

4911 has a 9<sup>th</sup> power whose first few digits are 16616111....

4913 is the [cube](#) of the sum of its digits.

4917 is the [trinomial coefficient](#)  $T(11,5)$ .

4919 is a [prime](#) that remains [prime](#) if any digit is deleted.

4920 = 6666 in base 9.

4922 is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

4923 and the two numbers before it and after it are all products of exactly 3 [primes](#).

4924 and the two numbers before it and after it are all products of exactly 3 [primes](#).

4927 is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

4928 is a structured truncated tetrahedral number.

**4930** =  $6677_9 = 2A2A_{12} = 2323_{13} = 1010_{17}$ , each using two digits exactly twice each.

**4931** is a value of  $n$  for which  $2n$  and  $7n$  together use the digits 1-9 exactly once.

**4933** is the number of digits in the 14<sup>th</sup> [Fermat number](#).

**4936** =  $4 + 44 + 444 + 4444$ .

**4939** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**4941** is a [centered cube number](#).

**4944** is a value of  $n$  for which  $n \phi(n)$  is a [palindrome](#).

**4949** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**4950** is both a [triangular number](#) and 5 times a [triangular number](#).

**4952** is the closest [integer](#) to  $15^\pi$ .

**4959** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**4960** =  ${}_{32}C_3$ .

**4961** is a [Hexanacci](#)-like number starting from 1, 1, 1, 1, 1, and 1.

**4964** is the number of binary [partitions](#) of 42.

**4967** is the number of [partitions](#) of 49 in which no part occurs only once.

**4974** is the sum of its [proper divisors](#) that contain the digit 8.

**4975** is a value of  $n$  for which  $n!!! + 1$  is [prime](#).

**4979** is a centered tetrahedral number.

**4980** has the same digits as the 4980<sup>th</sup> [prime](#).

**4982** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**4985** is the number of [graphs](#) with 8 vertices with [clique number](#) 4.

**4988** is the smallest multiple of 29 whose digits add to 29.

**4990** is the maximum number of pieces a [torus](#) can be cut into with 30 cuts.

**4991** is a [Lucas-Carmichael number](#).

**4992** is the maximum number of regions a [cube](#) can be cut into with 31 cuts.

**4993** is a [Proth prime](#).

**4995** has a 5<sup>th</sup> power that is closer to a [cube](#) than a [square](#).

**4999** is the smallest number whose digits add to 31.

**5000** is the largest number whose English name does not repeat any letters.

**5001** appears inside its 4<sup>th</sup> power.

**5002** has a 4<sup>th</sup> power containing only 4 different digits.

**5005** is the smallest [palindromic](#) product of 4 consecutive [primes](#).

**5009** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**5010** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**5016** is a [heptagonal pyramidal number](#).

**5020** is an [amicable number](#).

**5024** is a member of the [Fibonacci](#)-type sequence starting with 2 and 7.

**5026** is the number of [connected graphs](#) with 11 vertices and 1 cycle.

**5030** is the closest [integer](#) to  $23^e$ .

**5036** and the two numbers before it and after it are all products of exactly 3 [primes](#).

**5039** is the number of [planar partitions](#) of 18.

**5040** = 7!

**5041** is the largest [square](#) known of the form  $n! + 1$ .

**5042** is the number of subsets of  $\{1,2,3,\dots,16\}$  that have a sum divisible by 13.

**5044** is a value of  $n$  for which  $\phi(n)$  and  $\sigma(n)$  are [square](#).

**5046** is the first of five consecutive [squareful](#) numbers.

**5048** is the number of [strongly connected digraphs](#) with 5 vertices.

**5049** is an octagonal pyramidal number.

**5050** is the sum of the first 100 [integers](#).

**5054** =  $555 + 0 + 55 + 4444$ .

**5055** has exactly the same digits in 3 different bases.

**5056** is the number of ways to flip a coin 13 times and get at least 3 heads in a row.

**5057** is the number of squares in a  $16 \times 16$  grid of squares with diagonals drawn.

**5059** is the number of inequivalent asymmetric [Ferrers graphs](#) with 33 points.

**5061** is a number  $n$  whose  $5^{\text{th}}$  root has a decimal part that begins with the digits of  $n$ .

**5069** is the number of [square-free graphs](#) with 10 vertices.

**5071** is a [Lucas 3-step number](#) and a [Lucas 4-step number](#).

**5077** has a [square](#) whose digits each occur twice.

**5078** is the number of rectangles with corners on an  $12 \times 12$  grid of points.

**5080** is a structured truncated octahedral number.

**5083** is an centered icosahedral number.

**5084** is the number of inequivalent [Ferrers graphs](#) with 33 points.

**5087** has an eleventh root whose decimal part starts with the digits 1-9 in some order.

**5088** divides the sum of the digits of  $2^{5088} \times 5088!$ .

**5096** is the number of possible rook moves on a 14×14 chessboard.

**5098** is the number of [3-valent trees](#) with 17 vertices.

**5100** is divisible by its reverse.

**5103** and its successor are both divisible by 4<sup>th</sup> powers.

**5104** is the smallest number that can be written as the sum of 3 [cubes](#) in 3 ways.

**5105** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**5107** preceded by 5107 1's is [prime](#).

**5108** is the number of different flushes in 5 card poker.

**5109** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{33}$ .

**5118** is the maximum value of n so that there exist 6 denominations of stamps so that every postage from 1 to n can be paid for with at most 12 stamps.

**5120** is the number of edges in a 10 dimensional [hypercube](#).

**5130** is a value of  $n$  for which  $\varphi(n)$  and  $\sigma(n)$  are [square](#).

**5133** is the smallest integer ratio of a 18-digit number to its product of digits.

**5134** has the property that the sum of the [factorials](#) of its digits is its largest [prime factor](#).

**5135** is not the sum of a [square](#), a [cube](#), a 4<sup>th</sup> power, and a 5<sup>th</sup> power.

**5136** does not occur in its [factorial](#) in base 2.

**5141** is the sum of the first 17 numbers that have digit sum 17.

**5141** is the only four digit number that is reversed in [hexadecimal](#).

**5142** is the sum of its [proper divisors](#) that contain the digit 7.

**5143** =  $555 + 111 + 4444 + 33$ .

**5146** has a base 3 representation that begins with its base 7 representation.

**5152** is the number of legal rook moves in Chess.

**5153** is an Eisenstein-Mersenne [prime](#).

**5160** is a hendecagonal pyramidal number.

**5161** =  $5! + (1+6)! + 1!$



5162 =  $5! + (1+6)! + 2$ .

5163 =  $5! + (1+6)! + 3$ .

5164 =  $5! + (1+6)! + 4$ .

5165 =  $5! + (1+6)! + 5$ .

5166 =  $5! + (1+6)! + 6$ .

5167 =  $5! + (1+6)! + 7$ .

5168 has a [square root](#) that has four 8's immediately after the decimal point.

5169 =  $5! + (1+6)! + 9$ .

5170 is the number of [partitions](#) of 39 that do not contain 1 as a part.

5172 has a [cube](#) whose last few digits are ...48848448.

5174 has a 4<sup>th</sup> power containing only 4 different digits.

5176 is the number of labeled [graphs](#) with 6 vertices that have [chromatic number](#) 2.

5177 is the number of labeled [bipartite graphs](#) with 6 vertices.

5180 is the smallest number whose 7<sup>th</sup> power has 26 digits.

5181 is a structured octagonal anti-diamond number.

**5182** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**5183** is the product of [twin primes](#).

**5184** is the number of ways to place 2 non-attacking rooks on a 9×9 chessboard.

**5185** is the number of 2×2 [singular matrices](#) mod 17.

**5186** is equal to the sum of its [anti-divisors](#).

**5187** is the only number  $n$  known for which  $\varphi(n-1) = \varphi(n) = \varphi(n+1)$ .

**5191** is a value of  $n$  for which  $\sigma(n+1) = 2\sigma(n)$ .

**5199** divides the sum of the [cubes](#) of the first 5199 [primes](#).

**5200** is divisible by its reverse.

**5204** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**5211** has a [square root](#) whose decimal part starts with the digits 1-9 in some order.

**5216** is a structured hexagonal diamond number.

**5218** is the number of [3-colorable graphs](#) [connected graphs](#) with 8 vertices.

**5220** = 1111 in base 17.

**5222** has the property that the sum of the  $n^{\text{th}}$  powers of its digits is prime for  $1 \leq n \leq 9$ .

**5225** is the number of ways to color the vertices of a triangle with 25 colors, up to rotation.

**5226** is the number of ways to color the vertices of a square with 12 colors, up to rotation.

**5229** uses the same digits as  $\phi(5229)$ .

**5234** has a [cube](#) that is only 17 away from a [square](#).

**5237** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5239** has a [square](#) whose digits each occur twice.

**5241** is the starting location of 7777 in the decimal expansion of  $\pi$ .

**5242** is the number of ways to place 8 non-attacking kings on a  $8 \times 8$  chessboard so that there is a king in every row and column.

**5244** is the sum of consecutive [squares](#) in 2 ways.

**5247** is the number of ordered ways to write 1 as a sum of reciprocals of [integers](#) no larger than 10.

**5248** is the number of ordered ways to write 1 as a sum of reciprocals of [integers](#) no larger than 11.

**5250** is the number of linear geometries on 10 unlabeled points.

**5252** is the maximum number of regions space can be divided into by 26 [spheres](#).

**5256** is the number of labeled [partially ordered sets](#) of 4 elements.

**5257** is a member of the [Fibonacci](#)-type sequence starting with 1 and 8.

**5258** has a base 8 representation which is the reverse of its base 7 representation.

**5260** is the number of [multigraphs](#) with 24 vertices and 4 edges.

**5264** is the smallest number so that it and its successor are both the product of 2 [primes](#) and the 4<sup>th</sup> power of a [prime](#).

**5265** is a [Rhonda number](#).

**5269** is the number of [binary rooted trees](#) with 18 vertices.

**5271** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**5274** is the sum of its [proper divisors](#) that contain the digit 7.

**5278** is the number of ways, up to symmetry, to pick 3 elements of an  $8 \times 8$  grid.

**5279** is the number [permutations](#) of  $\{1, 2, 3, \dots, 20\}$  where adjacent numbers differ by no more than 2.

**5280** is the number of feet in a mile.

**5281** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**5282** is the number of different arrangements (up to rotation and reflection) of 8 non-attacking [rooks](#) on a 8×8 chessboard.

**5284** and the two numbers before it and after it are all products of exactly 3 [primes](#).

**5289** is a structured rhombic triacontahedral number.

**5291** is a value of  $n$  for which  $n(n+1)$  is a [palindrome](#).

**5292** =  $28 + 0 + 0 + 5264$  and has [square](#) 28005264.

**5293** is the smallest number that ends an arithmetic progression of 12 numbers with the same [prime signature](#).

**5296** is the [Entringer number](#)  $E(8,3)$ .

**5306** is the smallest number whose 9<sup>th</sup> power starts with 4 identical digits.

**5309** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**5312** is the index of a [prime Woodall number](#).

**5313** is the index of a [triangular number](#) containing only 3 different digits.

**5314** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**5322** is the starting location of 7777 in the decimal expansion of [π](#).

**5324** is the number of binary [cube-free words](#) of length 20.

**5327** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**5328** is the number of one-sided 6-knights.

**5332** is a [Kaprekar constant](#) in base 3.

**5335** is the magic constant of a  $22 \times 22$  magic square.

**5336** is a house number.

**5340** is an [octahedral number](#).

**5346** =  $198 \times 27$  and each digit is contained in the equation exactly once.

**5349** = 12345 in base 8.

**5355** is an odd [primitive abundant number](#).

**5357** is the smallest number that can not be formed using the digit 1 at most 27 times, together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**5358** are the first 8 digits of  $\pi^{5358}$ .

**5362** is the number of Chess positions that can be reached after 2 moves by white and 1 move by black.

**5364** is a value of  $n$  for which  $3n$  and  $7n$  together use each digit exactly once.

**5366** is the number of [graphs](#) with 8 vertices that have [chromatic number](#) 4.

**5367** uses the same digits as  $\phi(5367)$ .

**5369** is a [Wolstenholme number](#).

**5371** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5376** is the order of a [perfect group](#).

**5382** is the number of non-intersecting rook paths joining opposite corners of a  $6 \times 4$  chessboard.

**5383** is the number of triangles of any size contained in the triangle of side 27 on a triangular grid.

**5387** is the index of a [prime Fibonacci number](#).

**5390** is the number of ways to 7-color the faces of a [cube](#).

**5392** is a [Leyland number](#).

**5399** has a [cube](#) whose digits occur with the same frequency.

**5400** is divisible by its reverse.

**5401** is a member of the [Fibonacci](#)-type sequence starting with 3 and 7.

**5405** is the smaller number in a [Ruth-Aaron pair](#).

**5406** is the number of ways a  $9 \times 1$  rectangle can be surrounded by  $9 \times 1$  rectangles.

**5408** is an [Achilles number](#).

**5409** and its reverse are both differences of positive [cubes](#).

**5412** is a value of  $n$  so that  $n(n+4)$  is a [palindrome](#).

**5414** is the number of binary [partitions](#) of 43.

**5418** is a value of  $n$  for which  $n$  and  $7n$  together use each digit 1-9 exactly once.

**5419** is a [Cuban prime](#).

**5422** is the number of [semigroups](#) of order 6 with 3 [idempotents](#).

**5431** is the smallest number whose  $4^{\text{th}}$  power contains 5 consecutive 9's.

**5432** has digits in [arithmetic sequence](#).

**5434** is the sum of consecutive [squares](#) in 2 ways.

**5436** is the number of terms in the  $10^{\text{th}}$  derivative of  $f(f(f(f(f(x)))))$ .

**5439** is a [Rhonda number](#).

**5440** is the number of ways to legally add 2 sets of parentheses to a product of 15 variables.

**5443** is the smallest [prime](#)  $p$  with 17 consecutive [quadratic residues](#) mod  $p$ .



**5446** is the number of ways to to arrange the numbers 1-10 around a circle so that the sums of adjacent numbers are distinct.

**5448** is the number of ways to cut a 10×10 chessboard into 2 pieces with equal areas with a cut that only travels up and right.

**5455** is a [Kaprekar number](#) for [cubes](#).

**5456** and its reverse are [tetrahedral numbers](#).

**5457** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**5460** is both a [triangular number](#) and 7 times a [triangular number](#).

**5461** is a [Poulet number](#).

**5462** is the number of ways to walk along 14 edges of a triangle and end at the original vertex.

**5463** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**5464** is the number of subsets of {1,2,3,...,16} that have a sum divisible by 12.

**5469** has the property that  $e^{5469}$  is within .00003 of an [integer](#).

**5471** contains no 0's in base 3 through base 10.

**5472** has a base 3 representation that ends with its base 4 representation.

**5473** has a base 3 representation that ends with its base 4 representation.

**5474** is a [stella octangula number](#).

**5477** and its reverse are both one more than a [square](#).

**5478** is the number of [graphs](#) with 10 vertices that have [chromatic number](#) 2.

**5479** is the number of [bipartite graphs](#) with 10 vertices.

**5482** is the number of 3×3 sliding puzzle positions that require exactly 16 moves to solve starting with the hole in the center.

**5483** is the number of unlabeled [distributive lattices](#) with 18 elements.

**5487** is the maximum number of pieces a [torus](#) can be cut into with 31 cuts.

**5488** is an [Achilles number](#).

**5489** is the maximum number of regions a [cube](#) can be cut into with 32 cuts.

**5491** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**5493** is the number of [integers](#) with [complexity](#) 30.

**5499** is the average of all the even 4-digit numbers.

**5504** is the number of series-parallel networks with 6 labeled edges.

**5505** is a value of  $n$  for which  $n!!! - 1$  is [prime](#).

**5507** has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

**5508** is the [generalized Catalan number](#)  $C(13,5)$ .

**5509** is the number of [multigraphs](#) with 8 vertices and 9 edges.

**5513** is the number of [self-avoiding walks](#) of length 10.

**5525** is the smallest number that can be written as the sum of 2 [squares](#) in 6 ways.

**5530** is a [hexagonal pyramidal number](#).

**5533** is the number of [graphs](#) with 10 vertices and 2 cycles.

**5536** is the 16<sup>th</sup> [Tetranacci number](#).

**5542** is the number of [anisohedral 19-ominoes](#).

**5543** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**5544** is the number of [permutations](#) of 9 items that fix 4 elements.

**5545** is a member of the [Fibonacci](#)-type sequence starting with 1 and 5.

**5551** is the number of [trees](#) on 17 vertices with [diameter](#) 6.

**5554** is a [Kaprekar number](#) for [cubes](#).

**5555** is a [repdigit](#).

**5557** contains no 0's in base 3 through base 10.

**5560** are the first 4 digits of  $7^{5560}$ .

**5561** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**5564** is an [amicable number](#).

**5565** is a doubly triangular numbers.

**5566** is a [pentagonal pyramidal number](#).

**5568** is the number of ways to put 8 checkers on an 8×8 checkerboard so that each row, column, and main diagonal contains exactly one checker.

**5571** is a [perfect totient number](#).

**5573** is the number of digits in the 6<sup>th</sup> [Cullen prime](#).

**5574** is the number of [trees](#) on 31 vertices with [diameter](#) 4.

**5576** is a decagonal pyramidal number.

**5585** is the number of [monoids](#) of order 7 with 2 [idempotents](#).

**5586** does not occur in its [factorial](#) in base 2.

**5587** has a 5<sup>th</sup> root that starts 5.61611166....

**5588** is the index of a [triangular number](#) containing only 3 different digits.

**5591** is the smallest [prime](#) that is followed by 31 [composite numbers](#).

**5594** is the number of ways to dissect a 14-gon using non-crossing diagonals into polygons with an even number of sides.

**5595** is the number of labeled mappings from 6 points to themselves with exactly 3 cycles.

**5597** has a [cube](#) with only odd digits.

**5600** is the number of [self-complementary graphs](#) with 13 vertices.

**5602** = 22222 in base 7.

**5604** is the number of [partitions](#) of 30.

**5610** is divisible by its reverse.

**5611** is the smallest number for which it and the 3 numbers before and after it all have  $\phi(n)$  divisible by 10.

**5612** has the property that dropping its first and last digits gives its largest [prime factor](#).

**5616** is the order of a [non-cyclic simple group](#).

**5617** is a [divisor](#) of the sum of the 4<sup>th</sup> powers of its [divisors](#).

**5619** has a [cube](#) that contains the digits 5619 in reverse order.

**5620** is the smallest [composite number](#) which remains [composite](#) when preceded or followed by any digit.

**5623** and the [primes](#) preceding it and following it are all equal to 7 (mod 16).

**5624** is the number of binary  $5 \times 5$  matrices up to permutations of rows and columns.

**5625** has a [cube](#) that is the sum of 3 positive [cubes](#).

**5629** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 16 stamps.

**5637** uses the same digits as  $\varphi(5637)$ .

**5638** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 17 moves to solve starting with the hole in a corner.

**5647** is the closest [integer](#) to  $24^e$ .

**5651** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**5661** is the [trinomial coefficient](#)  $T(18,14)$ .

**5664** is a [Rhonda number](#).

**5668** is the number of [semigroups](#) of order 6 with 5 [idempotents](#).

**5669** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**5670** is a value of  $n$  for which  $\varphi(n)$  and  $\sigma(n)$  are [square](#).

**5671** is a [triangular number](#) that is the product of two [primes](#).

**5673** is the smallest number whose  $6^{\text{th}}$  power starts with 5 identical digits.

**5675** is the number of [monic polynomials](#) of [degree](#) 13 with [integer](#) coefficients whose complex roots are all in the unit disk.

**5678** has digits in [arithmetic sequence](#).

**5679** is the number of drawings of the [complete graph](#)  $K_{10}$  with a minimal number of [crossings](#).

**5680** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**5682** is the sum of its [proper divisors](#) that contain the digit 4.

**5689** is the largest 4-digit [prime](#) with strictly increasing digits.

**5690** is the number of isomers of  $C_{13}H_{26}$  containing a double bond.

**5691** is the number of different resistances that can be created in a circuit of 11 equal resistors.

**5692** is a number that does not have any digits in common with its [cube](#).

**5693** =  $5555 + 6 + 99 + 33$ .

**5694** =  $17082 / 3$ , and each digit is contained in the equation exactly once.

**5696** is the smallest number whose [square](#) contains 4 consecutive 4's.

**5697** has a 21<sup>st</sup> power that contains five 5's, six 6's, nine 9's, and seven 7's.

**5698** is the smallest number whose 8<sup>th</sup> power starts with 5 identical digits.

**5700** is divisible by its reverse.

**5709** is a structured pentakis dodecahedral number.

**5711** is the smallest [prime](#)  $p$  with 18 consecutive [quadratic residues](#) mod  $p$ .

**5712** is the number of [Gray codes](#) for a [4-dimensional cube](#).

**5717** is a value of  $n$  for which the first  $n$  binary digits of  $\pi$  form a [prime](#).

**5718** is the number of [partitions](#) of 54 into distinct parts.

**5719** is a [Zeisel number](#).

**5720** is a dodecagonal pyramidal number.

**5721** is the number of [graphs](#) with 8 vertices that have [chromatic number](#) 3.

**5723** has the property that its [square](#) starts with its reverse.

**5729** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**5731** is a value of  $n$  for which  $n(n+2)$  is a [palindrome](#).



**5734** has a [square](#) that is a [centered pentagonal number](#).

**5737** is the smallest number that can not be formed using the digit 1 at most 22 times, together with the symbols +, × and ^.

**5739** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**5740** = 7777 in base 9.

**5741** is the 11<sup>th</sup> [Pell number](#).

**5742** is a value of  $n$  for which  $5n$  and  $8n$  together use each digit exactly once.

**5751** is the number of ordered sequences of coins totaling 31 cents.

**5754** is the number of ways a loop can cross two parallel lines a total of 12 times.

**5755** is the sum of the digits of the 19<sup>th</sup> [Mersenne prime](#).

**5760** is the order of a [perfect group](#).

**5767** is the product of two consecutive [primes](#).

**5768** is the 16<sup>th</sup> [tribonacci number](#).

**5769** is the number of [permutations](#) of 9 elements that have 3<sup>rd</sup> power equal to the [identity permutation](#).

**5770** is a value of  $n$  for which  $\phi(n)$  and  $\sigma(n)$  are [square](#).

**5772** are the first 4 decimal digits of [Euler's constant](#).

**5773** is the index of a [triangular number](#) containing only 3 different digits.

**5774** is the smallest number whose [square](#) begins with four 3's.

**5775** is the smallest value of  $n$  for which both  $n$  and  $n+1$  are [abundant](#).

**5776** is the square of the last half of its digits.

**5777** is the smallest multi-digit number which is not the sum of a [prime](#) and twice a [square](#).

**5778** is the largest [Lucas number](#) which is also a [triangular number](#).

**5781** is a centered tetrahedral number.

**5784** has a [square](#) whose digits each occur twice.

**5786** =  $5555 + 77 + 88 + 66$ .

**5789** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5790** has the same digits as the 5790<sup>th</sup> [prime](#).

**5791** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5793** are the first 4 digits of 5793<sup>e</sup>.

**5795** is a value of  $n$  such that the  $n^{\text{th}}$  [Cullen number](#) is [prime](#).

**5796** =  $138 \times 42$  and each digit is contained in the equation exactly once.

**5798** is the 11<sup>th</sup> [Motzkin number](#).

**5807** is the index of a [Wagstaff prime](#).

**5813** is the concatenation of 3 consecutive [Fibonacci numbers](#).

**5814** =  $_{19}P_3$ .

**5817** =  $34902 / 6$ , and each digit is contained in the equation exactly once.

**5818** contains no 0's in base 3 through base 10.

**5819** has a sum of digits equal to its largest [prime factor](#).

**5821** contains no 0's in base 3 through base 10.

**5822** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 16 dimensional [hypercube](#).

**5823** is the smallest value of  $n$  for which  $n$  and  $3n$  together use each digit 1-9 exactly once.

**5824** can be written as the difference between two positive [cubes](#) in more than one way.

**5825** are the first 4 digits of  $e^{5825}$ .

**5830** is a [weird number](#).

**5831** has a sum of digits equal to its largest [prime factor](#).

**5832** is a value of  $n$  for which  $n$  and  $3n$  together use each digit 1-9 exactly once.

**5834** is the number of digits of the 21<sup>st</sup> [perfect number](#).

**5839** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5842** is a [Padovan number](#).

**5843** has a 5<sup>th</sup> root that starts 5.66666....

**5844** is the number of ways to stack 34 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**5848** has a [square](#) that remains [square](#) when a 9 is appended to it.

**5850** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $2n-1$  and  $2n+1$ .

**5851** is a value of  $n$  for which  $n$ ,  $n^2$ , and  $n^3$  have the same digit sum.

**5853** is the index of a [triangular number](#) containing only 3 different digits.

**5856** =  $1 \times 6 \times 16 \times 61$ .

**5858** has a [square](#) whose digits each occur twice.

**5859** can be written as the difference between two positive [cubes](#) in more than one way.

**5860** is the sum of the [squares](#) of 4 consecutive [primes](#).

**5863** is the starting location of 7777 in the decimal expansion of  $\pi$ .

**5864** has a 14<sup>th</sup> power that contains five 5's, eight 8's, six 6's, and four 4's.

**5865** is an enneagonal pyramidal number.

**5867** is a member of the [Fibonacci](#)-type sequence starting with 1 and 9.

**5868** is a value of  $n$  for which  $n$ ,  $n^2$ , and  $n^3$  have the same digit sum.

**5870** has a digit sum smaller than its [cube](#).

**5872** =  $5555 + 88 + 7 + 222$ .

**5873** divides  $1^1 + 2^2 + 3^3 + \cdots + 5873^{5873}$ .

**5876** is the number of ways to color the vertices of a triangle with 26 colors, up to rotation.

**5877** is a value of  $n$  for which  $5n$  and  $8n$ , or  $8n$  and  $9n$ , together use each digit exactly once.

**5879** is the smallest number so that it and the next 10 numbers all have an odd number of [prime factors](#).

**5880** is the [Stirling number of the second kind](#)  $S(10,7)$ .

**5885** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**5886** is a value of  $n$  for which  $3n$  and  $5n$  together use each digit exactly once.

**5890** is a [heptagonal pyramidal number](#).

**5892** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5895** is the number of necklaces possible with 7 beads, each being one of 5 colors.

**5896** is the number of ways to tile a  $3 \times 24$  rectangle with  $3 \times 1$  rectangles.

**5900** is the number of ways to place 32 points on a  $16 \times 16$  grid so that [no 3 points are on a line](#).

**5904** has a [square](#) comprised of the digits 1-8.

**5906** is the smallest number which is the sum of 2 rational  $4^{\text{th}}$  powers but is not the sum of two [integer](#)  $4^{\text{th}}$  powers.

**5909** is the number of symmetric [plane partitions](#) of 32.

**5913** =  $1! + 2! + 3! + 4! + 5! + 6! + 7!$

**5914** =  $0! + 1! + 2! + 3! + 4! + 5! + 6! + 7!$

**5915** is the sum of consecutive [squares](#) in 2 ways.

**5916** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5921** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**5923** is the largest  $n$  so that  $\mathbf{Q}(\sqrt{n})$  has [class number](#) 7.

**5925** is the index of a [triangular number](#) containing only 3 different digits.

**5926** +  $\varphi(5926) = 8888$ .

**5929** is a [square](#) which is also the sum of 11 consecutive [squares](#).

**5931** is the number of one-sided [7-kings](#).

**5934** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**5935** is a [Smith brother](#).

**5936** is divisible by the digits it does not contain, and not divisible by the digits it contains.

**5938** is the number of binary [partitions](#) of 44.

**5939** is the smallest [prime](#) so that it and the next 2 [primes](#) are all equal to 3 (mod 7).

**5940** is divisible by its reverse.

**5941** is the number of interior intersections when all the diagonals of a [regular](#) 22-gon are drawn.

**5943** is a value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**5950** is the sum of the digits of the 20<sup>th</sup> [Mersenne prime](#).

**5953** and the [primes](#) preceding it and following it are all equal to 3 (mod 14).

**5958** is the number of subsets of  $\{1,2,3,\dots,16\}$  that have a sum divisible by 11.

**5959** is the smaller number in a [Ruth-Aaron pair](#).

**5960** is the larger number in a [Ruth-Aaron pair](#).

**5963** is the number of intersections when all the diagonals of a [regular](#) 22-gon are drawn.

**5967** is a value of  $n$  for which  $6n$  and  $7n$  together use each digit exactly once.

**5968** has a [square](#) which uses the digits 0-7 each exactly once.

**5972** is the smallest number that appears in its [factorial](#) 8 times.

**5974** is the number of [connected planar graphs](#) with 8 vertices.

**5975** is a value of  $n$  for which  $\sigma(n) = \sigma(\text{reverse}(n))$ .

**5976** is a value of  $n$  for which  $n$  and  $7n$  together use each digit 1-9 exactly once.

**5978** is a value of  $n$  where  $\varphi(n)$  is the product of the digits of  $n$ .

**5984** =  ${}_{34}\underline{C}_3$ .

**5985** =  ${}_{21}\underline{C}_4$ .

**5986** and its [prime factors](#) contain every digit from 1-9 exactly once.



**5993** is the largest number known which is not the sum of a [prime](#) and twice a [square](#).

**5994** is the number of [lattices](#) on 10 unlabeled nodes.

**5995** is a [palindromic triangular number](#).

**5996** is a [truncated tetrahedral number](#).

**5999** is the smallest number whose digits add to 32.

**6000** is the number of subsets of the 24<sup>th</sup> [roots of unity](#) that add to 1.

**6001** has a [cube](#) that is a concatenation of other [cubes](#).

**6002** is the number of digits of the 24<sup>th</sup> [Mersenne prime](#).

**6003** has a [square](#) with the first 3 digits the same as the next 3 digits.

**6006** is the number of intersections when all the diagonals of a [regular](#) 21-gon are drawn.

**6008** =  $14\text{C}_6 + 14\text{C}_0 + 14\text{C}_0 + 14\text{C}_8$ .

**6009** is a [strobogrammatic number](#).

**6011** is a member of the [Fibonacci](#)-type sequence starting with 3 and 8.

**6012** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**6014** has a [square](#) that is formed by 3 [squares](#) that overlap by 1 digit.

**6016** is the maximum number of pieces a [torus](#) can be cut into with 32 cuts.

**6017** is a centered octahedral number.

**6018** is the maximum number of regions a [cube](#) can be cut into with 33 cuts.

**6020** is the number of [Hamiltonian graphs](#) with 8 vertices.

**6021** has a [square](#) that is formed by 3 [squares](#) that overlap by 1 digit.

**6024** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**6025** are the last 4 digits of the sum of the first 6025 [squares](#).

**6032** is the number of ways to place 2 non-attacking [knights](#) on a  $9 \times 9$  chessboard.

**6035** is a number whose sum of [divisors](#) is a  $5^{\text{th}}$  power.

**6040** is the number of ways to divide 6 couples into pairs where no pair is a couple.

**6048** is the order of a [non-cyclic simple group](#).

**6050** has a sum of digits equal to its largest [prime factor](#).

**6058** is a number that does not have any digits in common with its [cube](#).

**6065** is the closest [integer](#) to  $16^{\pi}$ .

**6070** is a structured truncated tetrahedral number.

**6072** is the order of a [non-cyclic simple group](#).

**6073** is the order of a [non-cyclic simple group](#).

**6075** is an [Achilles number](#).

**6077** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**6080** is the smallest number  $n > 1$  whose base 14 representation is equal to  $\phi(n)$ .

**6081** has a [cube](#) that is the sum of 3 positive [cubes](#).

**6083** has a [square](#) that is the sum of a [cube](#) and a 4<sup>th</sup> power.

**6084** is the sum of the first 12 [cubes](#).

**6092** is the number of [16-ominoes](#) with a line of symmetry.

**6093** is a value of  $n$  for which  $3n$  and  $5n$  together use each digit exactly once.

**6095** is a [rhombic dodecahedral number](#).

**6097** is an hexagonal prism number.

**6099** concatenated with its successor is [square](#).

**6100** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**6102** is the largest number  $n$  known where  $\phi(n)$  is the reverse of  $n$ .

**6105** is a [Huay rhombic dodecahedral number](#).

**6106** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**6107** is a [Perrin number](#).

**6111** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**6119** is a [strobogrammatic number](#).

**6120** is a highly abundant number.

**6121** is the smallest number whose [cube](#) contains 4 consecutive 3's.

**6128** is a [betrothed number](#).

**6137** is a centered dodecahedral number.

**6138** is the number of quasi-[tetrominoes](#) that fit inside a  $7 \times 7$  grid.

**6141** is a [Kaprekar constant](#) in base 2.

**6142** is the number of inequivalent asymmetric [Ferrers graphs](#) with 34 points.

**6143** is the smallest prime that contains twelve 1's in binary.

**6144** =  $16$ [!!!!](#).

**6145** is a [Friedman number](#).

**6153** is the number of [partitions](#) of 40 that do not contain 1 as a part.

**6155** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**6164** is the number of [11-ominoes](#) that tile the plane using 180 degree rotations.

**6167** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**6168** is the number of inequivalent [Ferrers graphs](#) with 34 points.

**6170** = 5 + 55 + 555 + 5555.

**6171** has the property that dropping its first and last digits gives its largest [prime factor](#).

**6173** is a [prime](#) that remains [prime](#) if any digit is deleted.

**6174** is the [Kaprekar constant](#) for 4-digit numbers.

**6175** is the number of regions formed when all diagonals are drawn in a [regular](#) 21-gon.

**6176** is the last 4-digit sequence to appear in the decimal expansion of [π](#).

**6179** is a value of n for which 4n and 5n together use each digit exactly once.

**6180** is the smallest number n with  $\phi(n) = 2 \text{ reverse}(n)$ .

**6181** is an [octahedral number](#).

**6187** is a [Smith brother](#).

**6188** =  $17C_5$ .

**6189** is the number of ways to write 17 as an ordered sum of positive [integers](#), where adjacent numbers are different.

**6194** is the number of ways to place a non-attacking white and black pawn on a 10×10 chessboard.

**6196** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of 21<sup>st</sup> [roots of unity](#).

**6197** is a [narcissistic number](#) in base 6.

**6200** is a [harmonic divisor number](#).

**6201** is the sum of the first 26 [squares](#).

**6210** is the number of 5×5 matrices with non-negative entries with every row and column adding to 2.

**6211** is a [Cuban prime](#).

**6216** has a [square](#) with the first 3 digits the same as the next 3 digits.

**6219** is a value of n for which 4n and 5n together use each digit exactly once.

**6220** = 44444 in base 6.

**6221** =  $666 + 2222 + 2222 + 1111$ .

**6222** is the smallest number that can not be written as the sum of 2 [triangular numbers](#) and a power of 2.

**6223** =  $666 + 2222 + 2 + 3333$ .

**6224** is the number of [permutations](#) of 8 elements that have 4<sup>th</sup> power equal to the [identity permutation](#).

**6225** =  $666 + 2 + 2 + 5555$ .

**6232** is an [amicable number](#).

**6235** is the number of different resistances that can be formed by eleven or fewer 1-ohm resistors in series or parallel.

**6237** is a number whose sum of the [squares](#) of its [divisors](#) is a [square](#).

**6239**, followed by 6239 7's, is [prime](#).

**6240** is a highly abundant number.

**6244** is a member of the [Fibonacci](#)-type sequence starting with 2 and 9.

**6245** is the smallest number whose [square](#) contains 4 consecutive internal 0's.

**6248** is the smallest number with the property that its first 8 multiples contain the digit 4.

**6249** is the smallest number with the property that its first 10 multiples contain the digit 4.

**6250** is a [Leyland number](#).

**6256** is a hendecagonal pyramidal number.

**6257** is the number of essentially different ways to dissect a [20-gon](#) into 9 [quadrilaterals](#).

**6266** is a [truncated octahedral number](#).

**6267** is the number of [15-diamonds](#) with holes.

**6270** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $2n-1$  and  $2n+1$ .

**6271** is the smallest number requiring an [addition chain](#) of length 17.

**6272** is the number of ways to tile a  $4 \times 29$  rectangle with  $4 \times 1$  rectangles.

**6273** is the number of ways to 9-color the vertices of a pentagon, up to rotations and reflections.

**6274** has a [cube](#) whose digits occur with the same frequency.

**6276** is a value of  $n$  for which  $\phi(n) = \phi(\text{reverse}(n))$ .

**6279** is the number of subsequences of  $\{1, 2, 3, \dots, 14\}$  in which every odd number has an even neighbor.

**6280** has a sum of [prime factors](#) that is equal to the sum of the [prime factors](#) of the two preceding numbers.



**6290** is the number of [13-iamonds](#) that do not tile the plane.

**6293** is the number of ordered [partitions](#) of 24 into distinct parts.

**6296** has a [square](#) with the first 3 digits the same as the next 3 digits.

**6297** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**6299** is the smallest number with [complexity](#) 30.

**6300** is divisible by its reverse.

**6307** is the largest  $n$  so that  $\mathbf{Q}(\sqrt{n})$  has [class number](#) 8.

**6309** is the closest [integer](#) to  $25^e$ .

**6310** is the smallest number whose  $5^{\text{th}}$  power has 19 digits.

**6312** is the sum of its [proper divisors](#) that contain the digit 5.

**6318** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**6320** is the [Entringer number](#)  $E(8,4)$ .

**6322** is the number of [idempotent](#) functions from a set of 7 elements into itself.

**6327** =  $324 + 325 + \dots + 342 = 343 + 344 + \dots + 360$ .

**6331** has the same digits as the 6331<sup>st</sup> [prime](#).

**6332** is the number of [fullerenes](#) with 68 carbon atoms.

**6336** is the number of ways to tile a  $9 \times 4$  rectangle with  $2 \times 1$  rectangles.

**6343** is the number of quasi-[triominoes](#) that fit inside a  $14 \times 14$  grid.

**6347** has the same digits as the 6347<sup>th</sup> [prime](#).

**6348** is a [pentagonal pyramidal number](#).

**6351** is the largest number known that is not the sum of 3 [squares](#) or [cubes](#).

**6354** is the number of [14-diamonds](#) that tile the plane.

**6360** is a value of  $n$  for which  $n-1$  and  $n+1$  are [twin primes](#), and so are  $3n-1$  and  $3n+1$ .

**6368** is an [amicable number](#).

**6371** has a [square](#) that is the sum of 2 [relatively prime cubes](#).

**6374** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**6375** has a [square](#) with the first 3 digits the same as the next 3 digits.

**6378** is the number of [partitions](#) of 55 into distinct parts.

**6379** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**6380** is a value of  $n$  for which  $n! + 1$  is [prime](#).

**6381** is the smallest value of  $n$  for which  $n$  and  $9n$  together use each digit 1-9 exactly once.

**6384** is an icosahedral number.

**6385** is the number of ways to stack 18 pennies in a line so that each penny lies on the table or on two pennies.

**6389** is the number of [functional graphs](#) on 11 vertices.

**6391** is a [hexagonal pyramidal number](#).

**6395** is the number of ways to divide a  $12 \times 12$  grid of points into two sets using a straight line.

**6396** is a [divisor](#) of the sum of the 4<sup>th</sup> powers of its [divisors](#).

**6397** has the same digits as the 6397<sup>th</sup> [prime](#).

**6399** and its successor are both divisible by 4<sup>th</sup> powers.

**6400** is a [square](#) whose digits are non-increasing.

**6403** has a [square](#) with the first 3 digits the same as the last 3 digits.

**6404** is a value of  $n$  for which  $n!! - 1$  is [prime](#).

**6406** is the number of [permutations](#) of 8 elements where every cycle has equal length.

**6408** is the sum of the [squares](#) of the first 13 [primes](#).

**6409** is a house number.

**6411** is a truncated cube number.

**6424** is the number of [minimal covers](#) of a set containing 6 elements.

**6427** is the number of ways a  $6 \times 6$  square can be tiled with  $1 \times 1$  and  $2 \times 2$  squares.

**6432** has the same digits as the 6432<sup>nd</sup> [prime](#).

**6434** is the number of [divisors](#) of the 18<sup>th</sup> [perfect number](#).

**6435** =  $15 \text{C}_7$ .

**6440** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**6443** has a [cube](#) whose digits occur with the same frequency.

**6444** is the smallest number whose 5<sup>th</sup> power starts with 5 identical digits.

**6445**, followed by 6445 1's, is [prime](#).

**6454** is the smallest value of  $n$  for which  $\pi(10n) = n$ .

**6455** is the smallest value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6456** is a value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6457** is a value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6458** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**6459** is a value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6460** is a value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6462** divides the sum of the digits of  $6462!$ .

**6466** is the largest known value of  $n$  for which the  $n^{\text{th}}$  [prime](#) begins with the digits of  $n$ .

**6471** is a value of  $n$  for which  $n$  and  $9n$  together use each digit 1-9 exactly once.

**6472** is the number of [polyominoes](#) with 9 or fewer squares.

**6475** is a value of  $n$  for which  $\pi(n)$  is the product of the digits of  $n$ .

**6479** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**6481** =  $(3^{12} + 1) / (3^4 + 1)$ .

**6487** is the number of [partitions](#) of 51 in which no part occurs only once.

**6488** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**6489** is half again as large as the sum of its proper [divisors](#).

**6490** is the number of ways to place 2 non-attacking [bishops](#) on a  $11 \times 11$  chessboard.

**6498** is the index of a [triangular number](#) containing only 3 different digits.

**6500** is a number  $n$  whose sum of the [factorials](#) of its digits is equal to  $\pi(n)$ .

**6501** has a [square](#) whose reverse is also a [square](#).

**6505** is the number of [9-hexes](#) without holes.

**6506** is a value of  $n$  for which the first  $n$  binary digits of  $\pi$  form a [prime](#).

**6510** is a number  $n$  whose sum of the [factorials](#) of its digits is equal to  $\pi(n)$ .

**6511** is a number  $n$  whose sum of the [factorials](#) of its digits is equal to  $\pi(n)$ .

**6512** is the number of 11-ominoes that tile the plane [isohedrally](#).

**6514** is the sum of the 4<sup>th</sup> powers of the digits of the sum of the 4<sup>th</sup> powers of the digits of itself.

**6517** has a sum of digits equal to its largest [prime factor](#).

**6521** is a number  $n$  whose sum of the [factorials](#) of its digits is equal to  $\pi(n)$ .

**6523** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**6524** has the property that its [square](#) starts with its reverse.

**6525** is a centered icosahedral number.

**6526** is the smallest number whose  $10^{\text{th}}$  power contains exactly the same digits as another  $10^{\text{th}}$  power.

**6527** is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

**6529** is a [Proth prime](#).

**6532** is a member of the [Fibonacci](#)-type sequence starting with 1 and 6.

**6533** is the number of digits of the  $25^{\text{th}}$  [Mersenne prime](#).

**6534** is a value of  $n$  for which  $3n$  and  $7n$  together use each digit exactly once.

**6537** is the smallest value of  $n$  for which the numbers  $n-6$  through  $n+6$  can not be written as the sum of 2 [squares](#).

**6540** is the number of terms in the  $17^{\text{th}}$  derivative of  $f(f(f(x)))$ .

**6543** has a [square root](#) that has four 8's immediately after the decimal point.

**6544** is a number  $n$  whose  $9^{\text{th}}$  root has a decimal part that begins with the digits of  $n$ .

**6545** and its reverse are [tetrahedral numbers](#).

**6547** is the number of binary  $4 \times 4$  matrices with no row or column containing 3 consecutive 1's.

**6552** is the number of different full houses in 5 card poker with one joker.

**6553** is a [Lucas 5-step number](#).

**6556** is the largest [palindrome](#) that can be made using 5 digits and the 4 arithmetic operations.

**6557** is the product of two consecutive [primes](#).

**6560** is the smallest number  $n$  where  $n$  and  $n+1$  are both products of 7 or more [primes](#).

**6561** =  $3^8$ .

**6569** is a value of  $n$  for which one less than the product of the first  $n$  [primes](#) is [prime](#).

**6572** is the number of [9-hexes](#).

**6576** =  $(6! - 6) + (5! - 5) + (7! - 7) + (6! - 6)$ .

**6578** is the smallest number which can be written as the sum of three 4<sup>th</sup> powers in 2 ways.

**6579** is the number of ways to color the vertices of a triangle with 27 colors, up to rotation.

**6580** is the maximum number of regions a [cube](#) can be cut into with 34 cuts.

**6581** has the same digits as the 6581<sup>st</sup> [prime](#).

**6583** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**6586** is a value of  $n$  for which  $n!!!! + 1$  is [prime](#).

**6588** is the number of sided [12-diamonds](#).

**6593** =  $6 + 5555 + 999 + 33$ .



**6594** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**6596** has a [square](#) comprised of the digits 0-7.

**6601** is a [Carmichael number](#).

**6603** is a number whose [square](#) and [cube](#) use different digits.

**6608** is the maximum number of regions space can be divided into by 28 [spheres](#).

**6609** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**6611** is a value of  $n$  such that the  $n^{\text{th}}$  [Cullen number](#) is [prime](#).

**6615** is an odd [abundant number](#).

**6620** is the number of [11-ominoes](#) that tile the plane.

**6623** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**6630** is the number of triangles of any size contained in the triangle of side 29 on a triangular grid.

**6636** has exactly the same digits in 3 different bases.

**6639** divides  $1^1 + 2^2 + 3^3 + \dots + 6639^{6639}$ .

**6642** can be written as the sum of 2 or 4 positive  $4^{\text{th}}$  powers.

**6643** is the smallest number which is [palindromic](#) in bases 2 and 3.

**6647** has a sum of digits equal to its largest [prime factor](#).

**6651** is the index of a [triangular number](#) containing only 3 different digits.

**6653**, when concatenated with 4 less than itself, is [square](#).

**6654** is the smallest number whose decimal part of its 4<sup>th</sup> root starts with the digits 0-9 in some order.

**6663** is a value of  $n$  for which  $\sigma(n)$  is a [repdigit](#).

**6665** is a centered tetrahedral number.

**6666** is a [repdigit](#).

**6667** is the number of self-dual [planar graphs](#) with 24 edges.

**6668** is the number of [trees](#) on 21 vertices with [diameter](#) 5.

**6669** is the sum of 3 consecutive [cubes](#).

**6680** =  $6666 + 6 + 8 + 0$ .

**6681** =  $6666 + 6 + 8 + 1$ .

**6682** =  $6666 + 6 + 8 + 2$ .

**6683** =  $6666 + 6 + 8 + 3$ .

**6684** =  $6666 + 6 + 8 + 4$ .

**6685** =  $6666 + 6 + 8 + 5$ .

**6686** =  $6666 + 6 + 8 + 6$ .

**6687** =  $6666 + 6 + 8 + 7$ .

**6688** =  $6666 + 6 + 8 + 8$ .

**6689** =  $6666 + 6 + 8 + 9$ .

**6694** is a value of  $n$  for which the sum of the first  $n$  [primes](#) is [square](#).

**6699** is a [strobogrammatic number](#).

**6700** has a [cube](#) that contains the digits 6700 in reverse order.

**6704** is the number of rooted [8-hexes](#).

**6706** is the number of [Hamiltonian paths](#) in a  $8 \times 5$  rectangle [graph](#).

**6712** is the index of a [triangular number](#) containing only 3 different digits.

**6714** is the index of a [triangular number](#) containing only 3 different digits.

**6716** is the 4-digit string that appears latest in the decimal expansion of [π](#).

6720 =  $8P_5$ .

6721 is a [composite](#) value of  $n$  that divides the  $(n-1)^{\text{st}}$  [Fibonacci number](#).

6723 is a value of  $n$  for which  $3n$  and  $8n$  together use each digit exactly once.

6726 is the  $10^{\text{th}}$  [Pell-Lucas number](#).

6728 is the number of domino tilings of a  $6 \times 6$  square.

6729 is the smallest value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

6731 would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

6732 is a value of  $n$  for which  ${}_{2n}C_n$  is divisible by  $n^2$ .

6734 is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

6735 is a [stella octangula number](#).

6736 is the number of  $3 \times 3$  sliding puzzle positions that require exactly 17 moves to solve starting with the hole in the center.

6740 is the number of [13-iamonds](#) that do not tile the plane.

6741 is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

6742 has a [square](#) where the first 6 digits alternate.

**6743** is the number of binary  $4 \times 5$  matrices with no consecutive 1's in any row or column.

**6745** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 25 stamps.

**6751** is the number of digits of the 23<sup>rd</sup> [perfect number](#).

**6754** is the smallest number in base 9 to have 5 different digits.

**6756** has a [cube](#) that is the sum of 3 positive [cubes](#).

**6757** is the number of [connected graphs](#) with 10 vertices and 34 edges.

**6759** is the number of [graphs](#) with 10 vertices and 11 edges.

**6764** is the sum of the first 18 [Fibonacci numbers](#).

**6765** is the 20<sup>th</sup> [Fibonacci number](#).

**6768** has a 9<sup>th</sup> root that starts 2.664444666....

**6769** is the [Stirling number of the first kind](#)  $s(8,4)$ .

**6772** has a [square](#) whose digits each occur twice.

**6779** =  $6666 + 7 + 7 + 99$ .

**6780** has the same digits as the 6780<sup>th</sup> [prime](#).

**6786** is a [triangular number](#) whose internal digits are [triangular](#) and whose external digits are [triangular](#).

**6788** is the smallest number with [multiplicative persistence](#) 6.

**6789** is the largest 4-digit number with increasing digits.

**6791** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**6792** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**6793** is the smallest [prime](#) so that it and the next 2 [primes](#) all end in 3.

**6794** has the property that dropping its first and last digits gives its largest [prime factor](#).

**6797** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**6799** is the number of different [degree sequences](#) possible for a graph with 18 edges.

**6801** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**6802** is the number of ways to move a rook from corner to opposite corner on a 6×6 chessboard.

**6811** is not the sum of a [square](#), a [cube](#), a 4<sup>th</sup> power, and a 5<sup>th</sup> power.

**6813** is the smallest number whose 6<sup>th</sup> power has 24 digits.

**6816** is the index of a [triangular number](#) containing only 3 different digits.

6818 =  $1^8 + 2^8 + 3^8$ .

6819 = 20457 / 3, and each digit is contained in the equation exactly once.

6820 is the number of regions formed when all diagonals are drawn in a [regular](#) 23-gon.

6822 uses the same digits as  $\phi(6822)$ .

6825 is an odd [primitive abundant number](#).

6828 is the number of ways to start with a knight in the corner of an 8×8 chessboard, make 8 moves, and end on the same square.

6831 is a structured truncated octahedral number.

6837 is the number of 8-digit [squares](#).

6839 is a value of n for which n and 8n together use each digit 1-9 exactly once.

6840 is the number of ways to place 2 non-attacking kings on a 11×11 chessboard.

6842 is the number of [partitions](#) of 31.

6845 would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

6849 is a value of n for which 2n and 3n together use each digit exactly once.

6850 is the smallest value of n for which n, n+1, n+2, n+3, n+4, and n+5 have the same number of [prime factors](#).

**6853** is a value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**6859** =  $19^3$ .

**6860** is a [heptagonal pyramidal number](#).

**6861** is a value of  $n$  for which  $\sigma(n-1) + \sigma(n+1) = \sigma(2n)$ .

**6863** is a [prime](#) that is the sum of the [square](#) of a [prime](#) and the [cube](#) of a [prime](#).

**6864** =  $6666 + 88 + 66 + 44$ .

**6865** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 17 stamps.

**6867** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**6868** is the larger number in a [Ruth-Aaron pair](#).

**6874** is equal to the sum of its [anti-divisors](#).

**6875** is [3-automorphic](#).

**6879** is the number of planar partitions of 15.

**6880** is a [vampire number](#).

**6886** is a [palindrome](#) in base 9 and in base 10.



**6888** has a [square](#) with 3/4 of the digits are the same.

**6889** is a [strobogrammatic square](#).

**6895** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**6896** has a [square root](#) whose decimal part starts with the digits 0-9 in some order.

**6900** is the number of ways to place 2 non-attacking [knights](#) on a  $11 \times 11$  chessboard.

**6902** is the number of [Hamiltonian paths](#) of a  $3 \times 10$  rectangle [graph](#).

**6903** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**6905** has a 5<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**6912** =  $6 \times 9 \times 1 \times 2^7$ .

**6917** is a value of  $n$  for which  $n! - 1$  is [prime](#).

**6918** =  $20754 / 3$ , and each digit is contained in the equation exactly once.

**6919** is the number of [non-invertible knots](#) with 13 [crossings](#).

**6922** is the number of [polycubes](#) containing 8 [cubes](#).

**6924** is the magic constant of a  $24 \times 24$  magic square.

**6926** has a [square](#) whose digits each occur twice.

**6927** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**6928** is the number of inequivalent binary [linear codes](#) of length 11.

**6930** is the [square root](#) of a [triangular number](#).

**6931** has the same digits as the 6931<sup>st</sup> [prime](#).

**6935** is the smallest number whose [cube](#) contains six 3's.

**6936** is the number of ways to legally add 2 sets of parentheses to a product of 16 variables.

**6939** is a value of  $n$  for which  $3n$  and  $5n$  together use each digit exactly once.

**6940** is the sum of its [proper divisors](#) that contain the digit 3.

**6941** has a [square](#) whose digits each occur twice.

**6942** is the number of labeled [topologies](#) with 5 elements.

**6944** is the number of [degree sequences](#) for [graphs](#) with 6 vertices.

**6949** is the smallest number that can not be written as the sum of 3 volumes of rectangular boxes with [integer](#) dimensions less than 16.

**6951** has exactly the same digits in 3 different bases.

**6952** =  $1738 \times 4$  and each digit from 1-9 is contained in the equation exactly once.

**6953** =  $66 + 999 + 5555 + 333$ .

**6954** is the [trinomial coefficient](#)  $T(19,15)$ .

**6956** is the number of triangles formed by drawing all diagonals of a [regular](#) 12-gon.

**6960** is the number of ways to place 2 non-attacking queens on a 10×10 chessboard.

**6966** is the number of [planar graphs](#) with 8 vertices.

**6969** is a [strobogrammatic number](#).

**6972** is the number of possible positions in Checkers containing 2 checkers.

**6976** is the number of binary 5×5 matrices  $A$  with the property that  $A^2=0 \pmod{2}$ .

**6982** is a value of  $n$  for which the sum of the first  $n$  [composite number](#) numbers is a [square](#).

**6983** is the smallest [prime](#) that can only be made into 1 other [prime](#) by changing a single digit.

**6984** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**6985** is the smallest number that can be written as the sum of 3 or more consecutive [squares](#), or as the sum of 3 or more consecutive [cubes](#).

**6987** is the number of digits of the 26<sup>th</sup> [Mersenne prime](#).

**6989** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**6991** is a value of  $n$  for which  $\text{reverse}(\phi(n)) = \phi(\text{reverse}(n))$ .

**6996** is a [palindrome](#)  $n$  so that  $n(n+8)$  is also [palindromic](#).

**6998** is a member of the [Fibonacci](#)-type sequence starting with 4 and 9.

**6999** is the smallest number whose digits add to 33.

**7000** has a sum of digits equal to its largest [prime factor](#).

**7001** is the number of [13-hexes](#) that tile the plane by translation.

**7002** is the number of arrangements of 4 non-attacking [queens](#) on a  $8 \times 8$  chessboard.

**7003** is the number of [graphs](#) with 9 vertices that have 8 [automorphisms](#).

**7014** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**7015** has a [cube root](#) whose decimal part starts with the digits 1-9 in some order.

**7019** is a [prime](#) that remains [prime](#) if any digit is deleted.

**7028** is the smallest multi-digit number  $n$ , when written in base 17, gives a divisor of  $n$ .

**7030** is an octagonal pyramidal number.

**7032** is the number of [ternary square-free words](#) of length 24.

**7039** =  $28156 / 4$ , and each digit is contained in the equation exactly once.

**7040** has a sum of digits equal to its largest [prime factor](#).

**7055** is a [Lucas-Carmichael number](#).

**7056** is a [square](#) that is the product of two [triangular numbers](#).

**7057** is a [Cuban prime](#).

**7060** has the property that the sum of the [squares](#) of its [divisors](#) ends with the digits 7060.

**7066** is the maximum value of  $n$  so that there exist 6 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 13 stamps.

**7068** is the number of [series-reduced planted trees](#) with 11 leaves.

**7071** is the smallest number whose [square](#) contains 4 consecutive 9's.

**7072** is the [generalized Catalan number](#)  $C(10,7)$ .

**7073** is a [Leyland number](#).

**7075** is the number of ways to stack 35 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**7084** is the [generalized Catalan number](#)  $C(19,4)$ .

**7089** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**7092** is the number of possible positions in Othello after 3 moves by both players.

**7093** has a 6<sup>th</sup> root that starts 4.38333833....

**7094** is the number of ways to place 34 points on a 17×17 grid so that [no 3 points are on a line](#).

**7096** is the number of 8-digit perfect powers.

**7098** is the [trinomial coefficient](#) T(14,9).

**7101** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**7102** is the index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

**7106** is an [octahedral number](#).

**7107** has a [square](#) whose digits each occur twice.

**7108** is the number of [partitions](#) of 56 into distinct parts.

**7117** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**7119** has the same digits as the 7119<sup>th</sup> [prime](#).

**7120** is the number of 2×2 [singular matrices](#) mod 10.

**7122** =  $7^2 + 8^3 + 9^4$ .

**7123** is the number of [2-connected graphs](#) with 8 vertices.

**7140** is the largest number which is both [triangular](#) and [tetrahedral](#).

**7142** is the smallest number that can not be written as the sum of 2 volumes of rectangular boxes with [integer](#) dimensions less than 20.

**7143** is [7-automorphic](#).

**7145** has a [square](#) with the first 3 digits the same as the next 3 digits.

**7150** has a sum of digits equal to its largest [prime factor](#).

**7152** has a [square](#) with the first 3 digits the same as the next 3 digits.

**7159** has a [square](#) with the first 3 digits the same as the next 3 digits.

**7161** is a [Kaprekar constant](#) in base 2.

**7164** is a value of  $n$  for which  $n^8$ ,  $n^9$ ,  $n^{10}$ , and  $n^{11}$  have the same digit sum.

**7170** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**7172** is a [Kaprekar number](#) for [cubes](#).

**7174** is the maximum number of pieces a [torus](#) can be cut into with 34 cuts.

**7175** is a centered octahedral number.

**7176** is the maximum number of regions a [cube](#) can be cut into with 35 cuts.

**7187** is the smallest number that can not be formed using the digits 0-8 at most once, together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**7188** is the number of ways to permute 5 red, 5 white, and 5 blue balls.

**7189** is the number of ways to color the vertices of a square with 13 colors, up to rotation.

**7192** is a [weird number](#).

**7193** is a [right-truncatable prime](#).

**7197** is the smallest number whose  $7^{\text{th}}$  power has 27 digits.

**7200** is the order of a [perfect group](#).

**7201** is the number of  $2 \times 2$  [singular matrices](#) mod 19.

**7209** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**7212** is the number of unordered ways to write 1 as a sum of reciprocals of [integers](#) no larger than 20.

**7225** is the number of ways to 17-color the faces of a [tetrahedron](#).

**7226** has a [cube root](#) that starts 19.3330030330....

**7230** is the sum of consecutive [squares](#) in 2 ways.

**7235** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**7236** uses the same digits as  $\varphi(7236)$ .



**7240** = 1111 in base 19.

**7241** is the number of asymmetric [trees](#) with 19 vertices.

**7245** appears inside its 4<sup>th</sup> power.

**7248** is the number of lines through exactly 2 points of a 14×14 grid of points.

**7253** has a [square](#) that remains [square](#) when a 6 is appended to it.

**7254** =  $186 \times 39$  and each digit is contained in the equation exactly once.

**7256** is a value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**7260** is a doubly triangular numbers.

**7269** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7271** and its reverse are both differences of positive [cubes](#).

**7272** is a [Kaprekar number](#).

**7281** is a value of  $n$  for which  $3n$  and  $7n$  together use each digit exactly once.

**7285** has a 7<sup>th</sup> power that contains the same digits as  $544^{10}$ .

**7286** is the number of subsets of  $\{1,2,3,\dots,16\}$  that have a sum divisible by 9.

**7293** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7295** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**7297** is a [Proth prime](#).

**7306** is the smallest number whose  $7^{\text{th}}$  power starts with 7 identical digits.

**7311** is the number of symmetric [plane partitions](#) of 33.

**7312** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**7314** is the smallest number so that it and its successor are both products of 4 distinct [primes](#).

**7315** =  $22 \text{C}_4$ .

**7318** is the number of functions from 10 unlabeled points to themselves.

**7320** is the number of triangles of any size contained in the triangle of side 30 on a triangular grid.

**7321** is the number of intersections when all the diagonals of a [regular](#) 24-gon are drawn.

**7322** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 17 moves to solve starting with the hole on a side.

**7326** =  $1 \times 22 \times 333$ .

**7327** is a number whose sum of [divisors](#) is a  $5^{\text{th}}$  power.

**7329** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7330** is the number of unsymmetrical ways to dissect a [regular](#) 14-gon into 12 triangles.

**7331** is a [right-truncatable prime](#).

**7333** is a [right-truncatable prime](#).

**7336** is the number of ways to color the vertices of a triangle with 28 colors, up to rotation.

**7337** is a [hexagonal pyramidal number](#).

**7338** is the closest [integer](#) to  $17^{\pi}$ .

**7339** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**7341** has the same digits as the  $7341^{\text{st}}$  [prime](#).

**7342** is the number of ways to stack 29 pennies in contiguous rows so that each penny lies on the table or on two pennies.

**7344** is a value of  $n$  for which  $4n$  and  $7n$  together use each digit exactly once.

**7345** has the same digits as the  $7345^{\text{th}}$  [prime](#).

**7351** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**7353** is the largest number  $n$  known so that both  $n$  and  $n^3$  have only odd digits.

**7356** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**7358** is a [composite number](#) that remains [composite](#) when preceded or followed by any digit.

**7359** is a [Lucas 6-step number](#).

**7360** can be written as the product of a number and its reverse in 2 different ways.

**7361** is the number of ways to play the first 5 moves in Checkers.

**7364** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**7366** is the maximum number of regions space can be divided into by 29 [spheres](#).

**7371** has a base 2 representation that begins with its base 9 representation.

**7375** is a member of the [Fibonacci](#)-type sequence starting with 1 and 4.

**7376** is a structured truncated tetrahedral number.

**7380** is the number of numbers with 4 or fewer digits that do not contain any 0's.

**7381** = 11111 in base 9.

**7383** has a  $4^{\text{th}}$  power that is  $1/2$  of the sum of three  $4^{\text{th}}$  powers.

**7384** has the same digits as the  $7384^{\text{th}}$  [prime](#).

**7385** is a [Keith number](#).

**7387** is the product of two consecutive [primes](#).

**7393** is a [right-truncatable prime](#).

**7396** has a 4<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**7403** is the smallest number that can not be formed using the digit 1 at most 28 times, together with the symbols +, −, × and ÷.

**7404** = 6 + 66 + 666 + 6666.

**7410** = 361 + 362 + . . . + 380 = 381 + 382 + . . . + 399.

**7413** is the number of [even permutations](#) on 8 elements with no fixed points.

**7414** is a value of n for which  $\varphi(n) = \varphi(\text{reverse}(n))$ .

**7416** is a value of n for which n and 8n together use each digit 1-9 exactly once.

**7420** is the number of [permutations](#) of 8 items that fix 2 elements.

**7421** is a value of n for which 4n and 5n together use each digit exactly once.

**7422** is the sum of its [proper divisors](#) that contain the digit 7.

**7424** and its successor are both [abundant](#).

**7425** is an odd [primitive abundant number](#).

**7427** is the number of inequivalent asymmetric [Ferrers graphs](#) with 35 points.

**7429** is the product of 3 consecutive [primes](#).

**7430** is the number of labeled [commutative monoids](#) of order 5.

**7433** is a [prime](#) that remains [prime](#) if any digit is deleted.

**7435** is a cubic star number.

**7436** is the number of  $6 \times 6$  [alternating sign matrices](#).

**7444** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**7447** is a [palindrome](#) in base 2 and in base 10.

**7448** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**7456** is the number of inequivalent [Ferrers graphs](#) with 35 points.

**7462** is the number of [multigraphs](#) with 26 vertices and 4 edges.

**7464** is a structured hexagonal diamond number.

**7465** = 54321 in base 6.

**7469** is the smallest number that can not be written as the sum of 2 volumes of rectangular boxes with [integer](#) dimensions less than 21.

**7471** is a [centered cube number](#).

7473 is a [Tribonacci](#)-like number starting from 1, 1, and 1.

7475 has a sum of digits equal to its largest [prime factor](#).

7480 is a value of  $n$  for which  ${}_n C_n$  is divisible by  $n^2$ .

7485 is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{35}$ .

7488 =  $(12 \times 13 \times 14 \times 15 \times 16) / (12 + 13 + 14 + 15 + 16)$  .

7490 has a [square](#) with the last 3 digits the same as the 3 digits before that.

7491 has a base 8 representation which is the reverse of its base 7 representation.

7494 is the sum of its [proper divisors](#) that contain the digit 4.

7496 =  $777 + 44 + 9 + 6666$ .

7497 is a hendecagonal pyramidal number.

7499 is the smallest number whose  $8^{\text{th}}$  power has 31 digits.

7500 is the order of a [perfect group](#).

7508 would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

7509 has a  $6^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

7512 is the sum of its [proper divisors](#) that contain the digit 5.

**7515** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**7519** is a member of the [Fibonacci](#)-type sequence starting with 1 and 7.

**7524** is the number of rectangles with corners on an  $12 \times 12$  grid of points.

**7525** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**7528** is the number of ways, up to rotation and reflection, of dissecting a [regular](#) 14-gon into 12 triangles.

**7531** has digits in [arithmetic sequence](#).

**7532** has a [square](#) comprised of the digits 0-7.

**7535** has a [square](#) whose digits each occur twice.

**7541** is an Eisenstein-Mersenne prime.

**7542** is a value of  $n$  for which  $4n$  and  $7n$  together use each digit exactly once.

**7546** is the number of [series-reduced planted trees](#) with 19 vertices.

**7547** is the maximum number of regions a circle can be cut into by joining 21 points on the circumference with straight lines.

**7549** is the largest known [prime](#)  $p$  where no numbers of the form  $p - n^2$  are [prime](#).

**7551** is a value of  $n$  for which  $\varphi(n) + \varphi(n+1)$  divides  $\sigma(n) + \sigma(n+1)$ .



**7552** is the number of arrangements of 6 non-attacking [queens](#) on a 10×6 chessboard.

**7557** is a [palindrome](#) that is the sum of the first 37 [palindromes](#).

**7560** is the smallest number with 64 [divisors](#).

**7561** is a [Markov number](#).

**7562** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**7574** is the sum of consecutive [squares](#) in 2 ways.

**7581** is the number of monotone [Boolean functions](#) of 5 variables.

**7586** = 777 + 55 + 88 + 6666.

**7588** is the smallest multiple of 28 whose digits add to 28.

**7590** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**7595** is the number of simplicial [polyhedra](#) with 12 vertices.

**7597** is a number whose sum of [divisors](#) is a 5<sup>th</sup> power.

**7600** is a substring of any power of itself.

**7614** is a value of n for which n and 7n together use each digit 1-9 exactly once.

**7615** is a value of n for which  $\sigma(n+1) = 2\sigma(n)$ .

**7617** is a [Hexanacci number](#).

**7618** has a [cube](#) that contains only digits 4 and smaller.

**7620** is the number of [multigraphs](#) with 5 vertices and 14 edges.

**7625** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**7627** is a value of  $n$  for which  $\sigma(\varphi(n)) = 2\sigma(n)$ .

**7629** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**7632** is a value of  $n$  for which  $5n$  and  $6n$  together use each digit exactly once.

**7635** is a centered tetrahedral number.

**7639** is the number of [rooted ternary trees](#) with 13 vertices.

**7647** is a [Keith number](#).

**7648** is the number of ways a  $10 \times 1$  rectangle can be surrounded by  $10 \times 1$  rectangles.

**7650** can be written as the product of a number and its reverse in 2 different ways.

**7651** is a value of  $n$  for which  ${}_2n\text{C}_n$  is not divisible by 3, 5, or 7.

**7652** is a value of  $n$  for which  $n^2$  and  $n^3$  use the same digits.

**7654** has digits in [arithmetic sequence](#).

**7658** is the largest number with distinct digits that does not have any digits in common with its [cube](#).

**7659** is the number of [planar graphs](#) with 22 vertices, all with [degree](#) 5 or more.

**7663** is the product of two [primes](#) which are reverses of each other.

**7664** is the [Entringer number](#)  $E(8,6)$ .

**7665** is a [Kaprekar constant](#) in base 2.

**7667** is a [palindrome](#) in base 6 and in base 10.

**7669** is the number of [integers](#) with [complexity](#) 31.

**7672** =  $777 + 6666 + 7 + 222$ .

**7673** is the smallest number with the property that its first 8 multiples contain the digit 3.

**7679** =  $7 + 6666 + 7 + 999$ .

**7680** is the number of possible rook moves on a  $16 \times 16$  chessboard.

**7681** is a [Proth prime](#).

**7683** is a [truncated tetrahedral number](#).

**7685** is the number of necklaces possible with 18 beads, each being one of 2 colors.

**7686** is a value of  $n$  for which  $7n$  and  $9n$  together use each digit exactly once.

**7688** is an [Achilles number](#).

**7692** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7693** is a value of  $n$  for which the sum of the first  $n$  [primes](#) is a [palindrome](#).

**7695** and its successor are both divisible by  $4^{\text{th}}$  powers.

**7698** has a [square](#) with the first 3 digits the same as the next 3 digits.

**7700** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**7703** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**7710** is the number of degree 17 [irreducible polynomials](#) over [GF\(2\)](#).

**7712** is the number of necklaces (that can't be turned over) possible with 17 beads, each being one of 2 colors.

**7713** is a value of  $n$  for which  $4n$  and  $9n$  together use each digit exactly once.

**7714** is the sum of the first 28 [squares](#).

**7721** is the smallest value of  $n$  for which  $3^n$  contains 8 consecutive 3's.

**7724** is the smallest number that can not be written using  $+$ ,  $\times$ , and 5 [Fibonacci numbers](#).

**7727** is the index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

**7732** and the two numbers before it and after it are all products of exactly 3 [primes](#).

**7734** is the sum of its [proper divisors](#) that contain the digit 8.

**7736** is the number of labeled [Eulerian digraphs](#) with 5 vertices.

**7738** has the property that dropping its first and last digits gives its largest [prime factor](#).

**7739** is a [Padovan number](#).

**7741** is the number of [trees](#) with 15 vertices.

**7743** is the smallest number whose 9<sup>th</sup> power has 35 digits.

**7744** is the smallest known [square](#) with no isolated digits.

**7745** and its reverse are both one more than a [square](#).

**7746** is the number [permutations](#) of {1,2,3,...,21} where adjacent numbers differ by no more than 2.

**7752** is the [generalized Catalan number](#)  $C(14,5)$ .

**7754** is the number of binary [cube-free words](#) of length 21.

**7755** is the index of a [prime Woodall number](#).

**7765** is the number of ways to tile a  $7 \times 5$  rectangle with [integer](#)-sided squares.

**7770** =  ${}_{37}\text{C}_3$ .

**7772** has a [square root](#) whose decimal part starts with the digits 1-9 in some order.

**7773** is the number of stable patterns with 17 cells in Conway's game of [Life](#).

**7775** = 55555 in base 6.

**7776** is a  $5^{\text{th}}$  power whose digits are non-increasing.

**7777** is a [Kaprekar number](#).

**7778** is the closest [integer](#) to  $27^e$ .

**7785** is a value of  $n$  for which  $5n$  and  $6n$  together use each digit exactly once.

**7788** is the index of a [triangular number](#) containing only 3 different digits.

**7792** has a [square](#) that is the sum of a [cube](#) and  $5^{\text{th}}$  power.

**7793** is the smallest [prime](#) so that it and the next 5 [primes](#) are all equal to 5 (mod 6).

**7795** has the same digits as the  $7795^{\text{th}}$  [prime](#).

**7799** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**7800** is the order of a [non-cyclic simple group](#).

**7803** is an [Achilles number](#).

**7805** is the maximum number of pieces a [torus](#) can be cut into with 35 cuts.

**7807** is the maximum number of regions a [cube](#) can be cut into with 36 cuts.

**7808** is the number of  $4 \times 4$  sliding puzzle positions that require exactly 12 moves to solve starting with the hole in a corner.

**7810** has the property that its [square](#) is the concatenation of two consecutive numbers.

**7811** is the number of ordered sequences of coins totaling 32 cents.

**7812** = 222222 in base 5.

**7820** is the [Stirling number of the second kind](#)  $S(17,15)$ .

**7821** is a value of  $n$  for which  $2n$  and  $9n$  together use each digit exactly once.

**7824** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**7825** is a [rhombic dodecahedral number](#).

**7826** is the number of necklaces possible with 6 beads, each being one of 6 colors.

**7827** has a [square](#) whose digits each occur twice.

**7835** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**7846** is a factor of 7847784878497850.

**7848** is the number of [connected 5-regular graphs](#) with 12 vertices.

**7849** is the number of [connected 6-regular graphs](#) with 12 vertices.

**7851** =  $7777 + 8 + 55 + 11$ .

**7852** =  $1963 \times 4$ , and each digit from 1-9 is contained in the equation exactly once.

**7853** is the largest [prime factor](#) of  $11! - 1$ .

**7854** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**7856** and its successor are both the product of a [prime](#) and the 4<sup>th</sup> power of a [prime](#).

**7860** is the number of [nonisomorphic](#) 3-state [automata](#) with binary inputs and outputs.

**7874** is the smallest number  $n$  for which  $n$  concatenated with  $n+2$  is a [square](#).

**7875** is an odd [abundant number](#).

**7880** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 26 stamps.

**7882** is a structured pentagonal hexacontahedral number.

**7884** is a value of  $n$  for which  $2n$  and  $5n$  together use each digit exactly once.



**7887** is the index of a [pentagonal number](#) which is twice another [pentagonal number](#).

**7888** is a value of  $n$  where  $\varphi(n)$  is the product of the digits of  $n$ .

**7890** is an icosahedral number.

**7894** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**7895** is the number of [multigraphs](#) with 6 vertices and 11 edges.

**7905** is a [Kaprekar constant](#) in base 2.

**7908** has the same digits as the 7908<sup>th</sup> [prime](#).

**7909** is a [Keith number](#).

**7912** is a [weird number](#).

**7913** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**7917** is the number of [partitions](#) of 57 into distinct parts.

**7919** is the 1000<sup>th</sup> [prime](#).

**7920** is the order of the smallest [sporadic group](#).

**7921** is the [square](#) of a [Fibonacci number](#).

**7922** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**7923** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7926** is the diameter of the earth in miles.

**7928** is a [Friedman number](#).

**7931** is a [heptagonal pyramidal number](#).

**7932** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**7936** is the 5<sup>th</sup> [tangent number](#).

**7937** is the smallest number whose [cube](#) contains 5 consecutive 9's.

**7939**, when followed by any of its digits, is [prime](#).

**7941** =  $7777 + 9 + 44 + 111$ .

**7942** =  $7777 + 99 + 44 + 22$ .

**7946** =  $7777 + 99 + 4 + 66$ .

**7953** is the number of domino tilings of a  $3 \times 14$  rectangle.

**7954** is the smallest value of  $n$  for which  $5^n + n$  is [prime](#).

**7956** is a value of  $n$  for which  $n$  and  $4n$  together use each digit 1-9 exactly once.

**7957** is a [Poulet number](#).

7958 =  $8 \times 9 \times 10 \times 11 + 8 + 9 + 10 + 11$ .

7960 is a structured deltoidal hexacontahedral number.

7964 is a value of  $n$  for which  $\varphi(n) = \varphi(\text{reverse}(n))$ .

7969 has a [square](#) that is formed by 3 [squares](#) that overlap by 1 digit.

7980 is the smallest number whose [divisors](#) contain every digit at least 7 times.

7983 is a [Lucas 8-step number](#).

7986 =  $11 \times 22 \times 33$ .

7992 can be written as the difference between two positive [cubes](#) in more than one way.

7993 is one less than twice its reverse.

7994 has a 5<sup>th</sup> power that is closer to a [cube](#) than a [square](#).

7997 is a [palindrome](#) in base 4 and in base 10.

7999, when followed by any of its digits, is [prime](#).

8000 is the smallest [cube](#) which is also the sum of 4 consecutive [cubes](#).

8001 is a [Kaprekar constant](#) in base 2.

8002 is the index of a [triangular number](#) containing only 3 different digits.

**8003** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**8004** has a [square](#) with the first 3 digits the same as the next 3 digits.

**8008** =  $16C_6$ .

**8010** uses the same digits as  $\pi(8010)$ .

**8012** is the number of [3-connected planar](#) maps with 18 edges.

**8016** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**8022** uses the same digits as  $\varphi(8022)$ .

**8026** is the number of [planar partitions](#) of 19.

**8032** is the number of congruency classes of triangles with vertices from a  $15 \times 15$  grid of points.

**8042** is the largest number known which cannot be written as a sum of 7 or fewer [cubes](#).

**8043** has a [square](#) whose digits each occur twice.

**8045** is the number of 6-digit [twin primes](#).

**8051** is the number of [partitions](#) of 52 in which no part occurs only once.

**8056** is the number of triangles of any size contained in the triangle of side 31 on a triangular grid.

**8064** =  $(1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9) / (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9)$ .

**8071** is the number of [connected graphs](#) with 11 edges.

**8074** is the [trinomial coefficient](#)  $T(12,6)$ .

**8077** is a value of  $n$  for which  $n^2$  and  $n^3$  use the same digits.

**8080** has a [square root](#) that has four 8's immediately after the decimal point.

**8082** has a [square](#) comprised of the digits 1-8.

**8083** is a value of  $n$  for which  $n$  concatenated with  $n-2$  is [square](#).

**8085** is an odd [primitive abundant number](#).

**8087** is a [Lucas 9-step number](#).

**8089** is the [pseudosquare](#) modulo 13.

**8090** is a [Perrin number](#).

**8092** is a [Friedman number](#).

**8100** is divisible by its reverse.

**8103** is the closest [integer](#) to  $e^9$ .

**8104** is equal to the sum of its [anti-divisors](#).

**8118** is a [strobogrammatic number](#).

**8119** is an [NSW number](#).

**8121** is the smallest number whose [cube](#) contains seven 5's.

**8125** is the smallest number that can be written as the sum of 2 [squares](#) in 5 ways.

**8128** is the 4<sup>th</sup> [perfect number](#).

**8129** is a member of the [Fibonacci](#)-type sequence starting with 2 and 7.

**8135** is the 7<sup>th</sup> central pentanomial coefficient.

**8136** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**8149** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**8152** is the number of symmetric arrangements of 8 non-attacking [queens](#) on a  $8 \times 8$  chessboard.

**8154** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**8156** has a [cube](#) that is only 24 away from a [square](#).

**8165** has a [square](#) that begins with four 6's.

**8169** =  $24507 / 3$ , and each digit is contained in the equation exactly once.

**8170** is an enneagonal pyramidal number.

**8174** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**8176** is a [stella octangula number](#).

**8178** is the number of ways 13 people can line up so that only one person has a taller person in front of him.

**8179** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**8180** is the maximum number of regions space can be divided into by 30 [spheres](#).

**8184** has exactly the same digits in 3 different bases.

**8189** is the index of a [triangular number](#) containing only 3 different digits.

**8190** is a [harmonic divisor number](#).

**8191** is a [Mersenne prime](#).

**8192** is the smallest non-trivial  $13^{\text{th}}$  power.

**8194** is the number of subsets of the  $26^{\text{th}}$  [roots of unity](#) that add to 0.

**8195** is the number of [17-ominoes](#) with a horizontal or vertical line of symmetry.

**8196** has a [square](#) whose digits each occur twice.

**8198** is the index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

$$8200 = 8 + 2^{13} + 0 + 0.$$

$$8201 = 8 + 2^{13} + 0 + 1.$$

$$8202 = 8 + 2^{13} + 0 + 2.$$

$$8203 = 8 + 2^{13} + 0 + 3.$$

$$8204 = 8 + 2^{13} + 0 + 4.$$

$$8205 = 8 + 2^{13} + 0 + 5.$$

$$8206 = 8 + 2^{13} + 0 + 6.$$

$$8207 = 8 + 2^{13} + 0 + 7.$$

**8208** is a [narcissistic number](#).

$$8209 = 8 + 2^{13} + 0 + 9.$$

**8217** is a centered icosahedral number.

**8219** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**8220** and its reverse are both the averages of [twin primes](#).

**8221** has a base 3 representation that begins with its base 6 representation.



**8225** are the first 4 digits of  $8^{8225}$ .

**8226** is the sum of its [proper divisors](#) that contain the digit 4.

**8229** has a [square](#) whose digits each occur twice.

**8230** is the number of necklaces with 8 beads, each one of 4 colors.

**8241** is a value of  $n$  for which  $n$  has  $\sigma(n) / \text{reverse}(n)$  [divisors](#).

**8242**, when concatenated with one less than it, is [square](#).

**8256** is the number of different arrangements (up to rotation and reflection) of 30 non-attacking [bishops](#) on a  $16 \times 16$  chessboard.

**8257** is the sum of the [squares](#) of the first 14 [primes](#).

**8258** is the number of different positions in Connect Four after 6 moves.

**8265** has a 7<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**8269** is a [Cuban prime](#).

**8280** is the smaller number in a [Ruth-Aaron pair](#).

**8281** is the only 4-digit [square](#) whose two 2-digit pairs are consecutive.

**8283** has a base 8 representation which is the reverse of its base 7 representation.

**8284** is a structured truncated cubic number.

**8292** is the number of [anisohedral 22-diamonds](#).

**8294** has the property that dropping its first and last digits gives its largest [prime factor](#).

**8299** is a value of  $n$  for which  $\text{reverse}(\varphi(n)) = \varphi(\text{reverse}(n))$ .

**8303** = 12345 in base 9.

**8304** is the number of subsets of the 18<sup>th</sup> [roots of unity](#) that add to a real number.

**8305** has the same digits as the 8305<sup>th</sup> [prime](#).

**8313** is a dodecagonal pyramidal number.

**8316** is the sum of 3 consecutive [cubes](#).

**8317** is the number of [trees](#) on 33 vertices with [diameter](#) 4.

**8320** is the number of subsets of  $\{1, 1/2, 1/3, \dots, 1/42\}$  that sum to an [integer](#).

**8321** is a [Poulet number](#).

**8338** is a value of  $n$  so that  $n(n+4)$  is a [palindrome](#).

**8340** is a value of  $n$  so that  $(n-1)^2 + n^2 + (n+1)^2$  is a [palindrome](#).

**8342** is the number of [partitions](#) of 53 in which no part occurs only once.

**8345** is the smallest number in base 6 to have 6 different digits.

**8349** is the number of [partitions](#) of 32.

**8350** is the [trinomial coefficient](#)  $T(10,1)$ .

**8351** has the same digits as the 8351<sup>st</sup> [prime](#).

**8353** is the smallest number whose 4<sup>th</sup> power contains 5 consecutive 6's.

**8355** has the same digits as the 8355<sup>th</sup> [prime](#).

**8360** has a [square](#) whose digits each occur twice.

**8361** is a [Leyland number](#).

**8363** is the number of 5-digit [primes](#).

**8368** has a 6<sup>th</sup> power whose first few digits are 34334444....

**8369** is the largest [prime factor](#) of  $2 \times 3 \times 5 \times 7 \times 11 \times 13 \times 17 - 1$ .

**8372** is a [hexagonal pyramidal number](#).

**8373** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**8375** is the smallest number which has equal numbers of every digit in bases 2 and 6.

**8378** has a 10<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**8379** is a value of  $n$  for which  $5n$  and  $8n$  together use each digit exactly once.

**8382** is the index of a [triangular number](#) containing only 3 different digits.

**8384** is the maximum number of  $13^{\text{th}}$  powers needed to sum to any number.

**8385** is a structured great rhombicuboctahedral number.

**8388** and its reverse are both the averages of [twin primes](#).

**8390** is the number of linear spaces on 7 labeled points.

**8392** is a value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**8393** is a value of  $n$  for which  $\sigma(\text{reverse}(n)) = \varphi(n)$ .

**8394** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**8396** does not occur in its [factorial](#) in base 2.

**8397** is the largest known [composite](#) number  $n$  so that  $3_n \underline{C}_n = 3^n \pmod{n}$ .

**8398** is the  $10^{\text{th}}$  super-ballot number.

**8400** is the number of legal queen moves in Chess.

**8401** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**8403** = 33333 in base 7.

**8404** is the number of [connected graphs](#) with 9 vertices and 13 edges.

**8406** is the number of ways to divide 8 black and 8 white beads into piles.

**8408** has  $8408 / \pi(8408)$  [divisors](#).

**8411** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**8415** is an odd [primitive abundant number](#).

**8418** is the number of necklaces possible with 11 beads, each being one of 3 colors.

**8419** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**8420** is the number of symmetric ways to fold a strip of 20 stamps.

**8421** = 1111 in base 20.

**8428** is the number of quasi-[triominoes](#) that fit inside a  $15 \times 15$  grid.

**8430** and its reverse are both the averages of [twin primes](#).

**8433** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**8436** =  $_{38}\text{C}_3$ .

**8439** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**8440** is a truncated square pyramid number.

**8441** is the sum of the [cubes](#) of 3 consecutive [primes](#).

**8442** is the smallest value of  $n$  for which the numbers  $n-7$  through  $n+7$  can not be written as the sum of 2 [squares](#).

**8448** is a factor of  $84 \times 44 \times 48$ .

**8451** is the number of  $3 \times 3$  matrices in base 3 with [determinant](#) 0.

**8455** is the [trinomial coefficient](#)  $T(20,16)$ .

**8459** is a value of  $n$  so that  $n(n+4)$  is a [palindrome](#).

**8461** is the smallest number whose  $9^{\text{th}}$  power starts with 5 identical digits.

**8463** is the smaller number in a [Ruth-Aaron pair](#).

**8464** is the number of different products of subsets of the set  $\{1, 2, 3, \dots, 17\}$ .

**8465**  $= 4^3 + 5^4 + 6^5$ .

**8467** has a  $9^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

**8469** is a value of  $n$  for which  $2n$  and  $3n$  together use each digit exactly once.

**8470** is the number of [conjugacy classes](#) in the [automorphism group](#) of the 17 dimensional [hypercube](#).

**8472** is the maximum number of pieces a [torus](#) can be cut into with 36 cuts.

**8473** is a centered octahedral number.

**8474** is the maximum number of regions a [cube](#) can be cut into with 37 cuts.

**8475** is the first of four consecutive [squareful](#) numbers.

**8477** =  $1^0 + 2^1 + 3^2 + 4^3 + 5^4 + 6^5$ .

**8481** is a [Poulet number](#).

**8484** is the [reciprocal](#) of the sum of the [reciprocals](#) of 13332 and its reverse.

**8486** =  $888 + 44 + 888 + 6666$ .

**8492** is the number of arrangements of 5 non-attacking [queens](#) on a 11×5 chessboard.

**8493** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**8494** is a value of n for which  $\sigma(n) = \varphi(n) + \varphi(n-1) + \varphi(n-2)$ .

**8497** is the number of [anisohedral 17-hexes](#).

**8499** is the sum of the [squares](#) of 3 consecutive [primes](#).

**8505** =  $21!!!!!!$ .

**8506** is the number of isomers of C<sub>13</sub>H<sub>26</sub> without any double bonds.

**8509** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**8510** is a value of  $n$  for which the sum of the first  $n$  [primes](#) is a [palindrome](#).

**8512** is the number of non-intersecting rook paths joining opposite corners of a  $5 \times 5$  chessboard.

**8515** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**8517** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**8521** is a [prime](#) that is the average of two  $4^{\text{th}}$  powers.

**8523** is the first of four consecutive [squareful](#) numbers.

**8525** has a [square](#) whose digits each occur twice.

**8526** is a [Rhonda number](#).

**8533** has the property that dropping its first and last digits gives its largest [prime factor](#).

**8538** is the sum of its [proper divisors](#) that contain the digit 4.

**8541** is a value of  $n$  so that  $n(n+6)$  is a [palindrome](#).

**8545** is the number of ways to stack 36 boxes in a line so that each box lies on the table or on a box next to 2 boxes.

**8547** is a [divisor](#) of 111111.



**8548** is the sum of the [squares](#) of 4 consecutive [primes](#).

**8549** has the property that the sum of its [proper divisors](#) is the sum of the [squares](#) of its digits.

**8555** is the sum of the first 29 [squares](#).

**8558** is a [Schröder number](#).

**8559** has a [square](#) comprised of the digits 1-8.

**8562** is the sum of its [proper divisors](#) that contain the digit 4.

**8563** is the index of a [triangular number](#) containing only 3 different digits.

**8568** =  $18C_5$ .

**8569** is a centered dodecahedral number.

**8571** shares 3 consecutive digits with one of its [prime factors](#).

**8575** is an [Achilles number](#).

**8576** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**8577** has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

**8578** appears inside its 4<sup>th</sup> power.

**8579** divides  $1^1 + 2^2 + 3^3 + \cdots + 8579^{8579}$ .

**8580** is the number of subsets of the  $28^{\text{th}}$  [roots of unity](#) that add to 1.

**8582** is the number of [monoids](#) of order 7 with 5 [idempotents](#).

**8586** has exactly the same digits in 3 different bases.

**8591** is the number of [partitions](#) of 42 that do not contain 1 as a part.

**8599** is the number of [forests](#) with 14 vertices.

**8602** is the [generalized Catalan number](#)  $C(20,4)$ .

**8610** =  $400 + 401 + \dots + 420 = 421 + 422 + \dots + 440$ .

**8614** and its [prime factors](#) contain every digit from 1-9 exactly once.

**8626** is the number of asymmetric [trees](#) with 13 vertices.

**8627** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**8631** is a value of  $n$  for which  $3n$  and  $7n$  together use each digit exactly once.

**8633** is the product of two consecutive [primes](#).

**8637** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**8638** =  $7 + 77 + 777 + 7777$ .

**8640** =  $2! \times 3! \times 6!$ .

**8641** is the number of ways to tile a  $3 \times 25$  rectangle with  $3 \times 1$  rectangles.

**8642** has digits in [arithmetic sequence](#).

**8646** divides  $2^{8646} + 2$ .

**8649** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**8657** is the number of ways to tile a  $4 \times 30$  rectangle with  $4 \times 1$  rectangles.

**8658** is the sum of the first 4 [perfect numbers](#).

**8663** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**8664** =  $888 + 6666 + 666 + 444$ .

**8666** has a  $9^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

**8669** is the maximum value of  $n$  so that there exist 5 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 18 stamps.

**8670** is a value of  $n$  for which  $n!! - 1$  is [prime](#).

**8672** is the number of [14-ominoes](#) that tile the plane by translation.

**8680** has a base 5 representation that ends with its base 7 representation.

**8681** has a base 5 representation that ends with its base 7 representation.

**8682** has a base 5 representation that ends with its base 7 representation.

**8683** has a base 5 representation that ends with its base 7 representation.

**8684** has a base 5 representation that ends with its base 7 representation.

**8688** is the number of possible configurations of pegs (up to symmetry) after 26 jumps in solitaire.

**8695** is a centered tetrahedral number.

**8697** is a structured octagonal anti-diamond number.

**8698** is a [strobogrammatic number](#).

**8703** has a [cube](#) that is the sum of 3 positive [cubes](#).

**8712** is 4 times its reverse.

**8714** is the number of ways 24 people around a round table can shake hands in a non-crossing way, up to rotation.

**8718** is the smallest  $n$  for which  $\sum_{k \leq n} 1/(k \ln k) \geq 3$ .

**8721** is a value of  $n$  for which  $\varphi(n)$  and  $\sigma(n)$  are [square](#).

**8732** has exactly the same digits in 3 different bases.

**8736** is the smallest number that appears in its [factorial](#) 10 times.

**8739** is a permutation of the sum of its [proper divisors](#).

**8743** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**8744** is the number of subsets of  $\{1,2,3,\dots,17\}$  that have a sum divisible by 15.

**8745** is the number of ways to divide a  $13\times 13$  grid of points into two sets using a straight line.

**8748** is the largest number whose [prime factors](#) add to 25.

**8751** is a [perfect totient number](#).

**8753** =  $88 + 7777 + 555 + 333$ .

**8758** =  $88 + 7777 + 5 + 888$ .

**8761** is the number of ordered [partitions](#) of 25 into distinct parts.

**8763** and its successor have the same digits in their [prime factorization](#).

**8765** has digits in [arithmetic sequence](#).

**8771**  $2^4 + 3^4 + 4^4 + 5^4 + 6^4 + 7^4 + 8^4$ .

**8772** is the sum of the first eight 4<sup>th</sup> powers.

**8778** is both a [triangular number](#) and 3 times a [triangular number](#).

**8779** is is the largest [prime factor](#) of 100000000001.

**8781** is the closest [integer](#) to  $18^\pi$ .

**8784** is a value of  $n$  for which  $2n$  and  $5n$  together use each digit exactly once.

**8785** is the number of [13-diamonds](#) without holes.

**8788** is an [Achilles number](#).

**8793** is a value of  $n$  for which  $n!!! - 1$  is [prime](#).

**8796** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**8797** is a structured hexagonal diamond number.

**8801** is the magic constant of a  $26 \times 26$  magic square.

**8808** is the number of [partitions](#) of 58 into distinct parts.

**8810** has a [square](#) whose digits each occur twice.

**8813** is the number of [chiral invertible knots](#) with 14 [crossings](#).

**8814** is the number of [multigraphs](#) with 27 vertices and 4 edges.

**8816** is a value of  $n$  for which  $\text{reverse}(\varphi(n)) = \varphi(\text{reverse}(n))$ .

**8819** is the smallest number whose [square](#) begins with four 7's.

**8820** is a highly abundant number.

**8821** has the property that if each of its digits is replaced by its [cube](#), the result is a [square](#).

**8826** is the sum of its [proper divisors](#) that contain the digit 4.

**8829** is a value of  $n$  for which  $6n$  and  $7n$  together use each digit exactly once.

**8830** is the number of lines passing through at least 2 points of an  $14 \times 14$  grid of points.

**8831** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**8833** =  $88^2 + 33^2$ .

**8835** is the index of a [triangular number](#) containing only 3 different digits.

**8837** is the smallest number that can not be written as the sum of 3 volumes of rectangular boxes with [integer](#) dimensions less than 17.

**8838** and its reverse are both the averages of [twin primes](#).

**8840** is the number of triangles of any size contained in the triangle of side 32 on a triangular grid.

**8843** is the smallest number that can not be written as the sum of 2 volumes of rectangular boxes with [integer](#) dimensions less than 22.

**8846** is the number of [divisors](#) of the 20<sup>th</sup> [perfect number](#).

**8854** is the number of possible rows in a  $20 \times 20$  crossword puzzle.

**8855** is a [Lucas-Carmichael number](#).

**8856** is the number of subsets of  $\{1,2,3,\dots,16\}$  that have an [integer](#) average.

**8857** is a structured truncated tetrahedral number.

**8860** is the smallest number  $n$  so that  $n+3$ ,  $n^2+3^2$ ,  $n^4+3^4$ , and  $n^8+3^8$  are all [prime](#).

**8864** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**8867** is the smallest [prime](#) with [multiplicative persistence](#) 6.

**8874** has a [square](#) that is the concatenation of two consecutive even numbers.

**8878** is the number of intersections when all the diagonals of a [regular](#) 23-gon are drawn.

**8883** does not occur in its [factorial](#) in base 2.

**8887** is a value of  $n$  for which  $\sigma(n)$  is a [repdigit](#).

**8888** is a [repdigit](#).

**8892** is a [betrothed number](#).

**8902** is the number of possibilities for the first 1.5 moves in Chess.

**8905** multiplied by its successor gives a number concatenated with itself.

**8910** is divisible by its reverse.



**8911** is a [Carmichael number](#).

**8913** is the maximum value of  $n$  so that there exist 4 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 27 stamps.

**8922** is the sum of its [proper divisors](#) that contain the digit 4.

**8923** is the numerator of  $1 / 1^1 + 1 / 2^2 + 1 / 3^3 + 1 / 4^4$ .

**8925** is an odd [primitive abundant number](#).

**8930** =  $8888 + 9 + 33 + 0$ .

**8931** =  $8888 + 9 + 33 + 1$ .

**8932** =  $8888 + 9 + 33 + 2$ .

**8933** =  $8888 + 9 + 33 + 3$ .

**8934** =  $8888 + 9 + 33 + 4$ .

**8935** =  $8888 + 9 + 33 + 5$ .

**8936** =  $8888 + 9 + 33 + 6$ .

**8937** =  $8888 + 9 + 33 + 7$ .

**8938** =  $8888 + 9 + 33 + 8$ .

**8939** =  $8888 + 9 + 33 + 9$ .

**8942** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**8944** is the sum of the [cubes](#) of the first 7 [primes](#).

**8950** has a 4<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**8953** is the 10<sup>th</sup> [central trinomial coefficient](#).

**8954** is the first of four consecutive [squareful](#) numbers.

**8958** has a 4<sup>th</sup> power whose product of digits is also a 4<sup>th</sup> power.

**8959** is the smallest multiple of 31 whose digits add to 31.

**8964** is the smallest number with the property that its first 6 multiples contain the digit 8.

**8965** is a value of  $n$  for which  $n^2$  and  $n^3$  use the same digits.

**8968** is a [strobogrammatic number](#).

**8970** =  $8 + 9^4 + 7^4 + 0$ .

**8971** =  $8 + 9^4 + 7^4 + 1$ .

**8972** =  $8 + 9^4 + 7^4 + 2$ .

**8973** =  $8 + 9^4 + 7^4 + 3$ .

**8974** =  $8 + 9^4 + 7^4 + 4$ .

**8975** =  $8 + 9^4 + 7^4 + 5$ .

**8976** =  $8 + 9^4 + 7^4 + 6$ .

**8977** =  $8 + 9^4 + 7^4 + 7$ .

**8978** =  $8 + 9^4 + 7^4 + 8$ .

**8979** =  $8 + 9^4 + 7^4 + 9$ .

**8980** is a value of  $n$  for which the first  $n$  binary digits of  $\pi$  form a [prime](#).

**8982** uses the same digits as  $\phi(8982)$ .

**8989** is a [Delannoy number](#).

**8991** is the smallest number so that it and its successor are both the product of a [prime](#) and the 5<sup>th</sup> power of a [prime](#).

**8993** is a [Huay rhombic dodecahedral number](#).

**8999** is the smallest number whose digits add to 35.

**9000** is the index of a [triangular number](#) containing only 3 different digits.

**9002** is a value of  $n$  so that  $n(n+7)$  is a [palindrome](#).

**9005** is the number of inequivalent [Ferrers graphs](#) with 36 points.

**9006** is a [strobogrammatic number](#).

**9009** is a [centered cube number](#).

**9011** has a [square](#) that is the concatenation of two consecutive odd numbers.

**9012** is the sum of its [proper divisors](#) that contain the digit 5.

**9016** is the number of [perfect squared rectangles](#) of order 16.

**9018** has a [square](#) with the last 3 digits the same as the 3 digits before that.

**9020** is the number of ways to color the vertices of a triangle with 30 colors, up to rotation.

**9023** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**9024** is the number of regions formed when all diagonals are drawn in a [regular](#) 24-gon.

**9025** is a [Friedman number](#).

**9028** is the number of ways to tile a  $9 \times 4$  rectangle with [integer](#)-sided squares.

**9032** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**9036** has a  $9^{\text{th}}$  power that contains the same digits as  $3585^{10}$ .

**9037** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**9038** is the number of [conjugacy classes](#) of the [alternating group](#)  $A_{36}$ .

**9042** is the [trinomial coefficient](#)  $T(11,4)$ .

**9045** is the number of ways to 18-color the faces of a [tetrahedron](#).

**9048** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of  $24^{\text{th}}$  [roots of unity](#).

**9049** is an Eisenstein-Mersenne prime.

**9052** is the maximum number of regions space can be divided into by 31 [spheres](#).

**9055** is the index of a [triangular number](#) containing only 3 different digits.

**9056** is a cubic star number.

**9059** has an  $8^{\text{th}}$  root that starts 3.12345....

**9070** has a  $4^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

**9072** has a base 2 and base 3 representation that end with its base 6 representation.

**9073** has a base 2 and base 3 representation that end with its base 6 representation.

**9074** has a base 3 representation that ends with its base 6 representation.

**9077** is a [Markov number](#).

**9078** has a [cube](#) whose digits occur with the same frequency.

**9079** has a [square](#) that is the concatenation of two consecutive decreasing numbers.

**9086** is the number of regions formed when all diagonals are drawn in a [regular](#) 23-gon.

**9091** is the only [prime](#) known whose [reciprocal](#) has period 10.

**9093** has a [square](#) with the first 3 digits the same as the next 3 digits.

**9099** is the number of ways to 3-color the faces of a [dodecahedron](#).

**9101** has a [square](#) where the first 6 digits alternate.

**9104** has a [square](#) with the first 3 digits the same as the next 3 digits.

**9105** is the number of possible positions in Checkers after 6 moves.

**9108** is a [heptagonal pyramidal number](#).

**9109** is the number of regions the [complex plane](#) is cut into by drawing lines between all pairs of 23<sup>rd</sup> [roots of unity](#).

**9113** is a [narcissistic number](#) in base 5.

**9115** has a base 3 representation that begins with its base 6 representation.

**9116** is a [strobogrammatic number](#).

**9117** is a value of  $n$  for which  $6n$  and  $7n$  together use each digit exactly once.

**9119** is the number of symmetric [plane partitions](#) of 34.

**9121** is the number of possibilities for the last 5 digits of a [square](#).

**9126** is a [pentagonal pyramidal number](#).

**9134** has a  $10^{\text{th}}$  root whose decimal part starts with the digits 1-9 in some order.

**9135** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**9137** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**9138** is the number of [13-diamonds](#) without bilateral symmetry.

**9139** =  ${}_{39}\text{C}_3$ .

**9152** and its successor are both divisible by  $4^{\text{th}}$  powers.

**9153** is a value of  $n$  for which  $2n$  and  $3n$  together use each digit exactly once.

**9154** is a value of  $n$  for which  $\varphi(n)$  and  $\sigma(n)$  are [square](#).

**9156** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9158** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9162** is a value of  $n$  for which  $5n$  and  $8n$  together use each digit exactly once.

**9168** =  $27504 / 3$ , and each digit is contained in the equation exactly once.

**9172** is the number of connected planar maps with 7 edges.

**9174** is the sum of its [proper divisors](#) that contain the digit 5.

**9176** is the maximum number of pieces a [torus](#) can be cut into with 37 cuts.

**9178** is the maximum number of regions a [cube](#) can be cut into with 38 cuts.

**9179** is a value of  $n$  for which  $\varphi(n) = \varphi(n-1) + \varphi(n-2)$ .

**9182** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9183** is the number of sets of distinct positive [integers](#) with mean 8.

**9185** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**9189** is the number of sided [10-ominoes](#).

**9191** is not the sum of a [square](#), a [cube](#), a  $4^{\text{th}}$  power, and a  $5^{\text{th}}$  power.

**9196** has the property that dropping its first and last digits gives its largest [prime factor](#).

**9198** is the number of [ternary square-free words](#) of length 25.

**9201** is a [truncated octahedral number](#).

**9214** is the number of ways to stack 30 pennies in contiguous rows so that each penny lies on



the table or on two pennies.

9216 is a [Friedman number](#).

9217 is the total number of digits of all [binary numbers](#) of length 1-10.

9219 is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

9224 is an [octahedral number](#).

9233 is the number of different arrangements (up to rotation and reflection) of 13 non-attacking [queens](#) on a 13×13 chessboard.

9234 is the number of [multigraphs](#) with 7 vertices and 10 edges.

9235 is the number of [13-diamonds](#).

9237 is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

9240 =  ${}_{22}P_3$ .

9241 is a [Cuban prime](#).

9243 has a 4<sup>th</sup> power that is the sum of four 4<sup>th</sup> powers.

9248 is the number of possible rook moves on a 17×17 chessboard.

9250 =  $(10^3 + 10^4 + 10^5 + 10^6) / (3 \times 4 \times 5 \times 6)$ .

9251 has a [square](#) whose digits each occur twice.

**9252** is the number of necklaces with 10 white and 10 black beads.

**9253** is the smallest number that appears in its [factorial](#) 9 times.

**9261** is a [Friedman number](#).

**9267** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**9268** is a value of  $n$  for which  $2\phi(n) = \phi(n+1)$ .

**9272** is a [weird number](#).

**9273** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**9282** is the product of three consecutive [Fibonacci numbers](#).

**9284** is the number of ways to place 2 non-attacking [bishops](#) on a  $12 \times 12$  chessboard.

**9285** is the number of [16-hexes](#) with reflectional symmetry.

**9286** is a [narcissistic number](#) in base 7.

**9287** is the number of stretched [10-ominoes](#).

**9288** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**9289** is a [Tetranacci](#)-like number starting from 1, 1, 1, and 1.

**9296** is the number of ways to break  $\{1, 2, 3, \dots, 17\}$  into sets with equal sums.

**9298** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**9304** =  $65128 / 7$ , and each digit is contained in the equation exactly once.

**9305** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**9306** is a value of  $n$  for which  $3n$  and  $5n$  together use each digit exactly once.

**9310** is a decagonal pyramidal number.

**9311** is the index of a [prime Fibonacci number](#).

**9313**, when followed by any of its digits, is [prime](#).

**9314** is the 13<sup>th</sup> lccanobif number.

**9315** is a value of  $n$  for which  $2n$  and  $3n$  together use each digit exactly once.

**9316** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9321** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9324** is the [reciprocal](#) of the sum of the [reciprocals](#) of 14652 and its reverse.

**9327** is a value of  $n$  for which  $n$  and  $2n$  together use each digit 1-9 exactly once.

**9330** is the [Stirling number of the second kind](#)  $S(10,3)$ .

**9331** has the property that the sum of its [prime factors](#) is equal to the product of its digits.

**9339** is a value of  $n$  for which  $\varphi(n) = \varphi(n-2) - \varphi(n-1)$ .

**9347** is a value of  $n$  for which the sum of [square](#)-free [divisors](#) of  $n$  and  $n+1$  are the same.

**9348** has a  $8^{\text{th}}$  power that contains the same digits as  $3588^9$ .

**9349** is the  $19^{\text{th}}$  [Lucas number](#).

**9350** appears inside its  $4^{\text{th}}$  power.

**9352** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9360** is a value of  $n$  for which  $\sigma(n-1) = \sigma(n+1)$ .

**9362** = 22222 in base 8.

**9363** is the number of tilted rectangles with vertices in a  $15 \times 15$  grid.

**9364** is the number of [connected digraphs](#) with 5 vertices.

**9367** is a value of  $n$  for which  $n$ ,  $n+1$ ,  $n+2$ , and  $n+3$  have the same number of [divisors](#).

**9371** is a [prime](#) that remains [prime](#) when preceded and followed by one, two, three, or four 3's.

**9374** is a value of  $n$  for which  $\varphi(\sigma(n)) = \varphi(n)$ .

**9375** has a [cube](#) that ends with those digits.

**9376** is an [automorphic number](#).

**9377** is a value of  $n$  for which  $n$ ,  $2n$ ,  $3n$ , and  $4n$  all use the same number of digits in [Roman numerals](#).

**9378** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9380** is the number of lines through exactly 2 points of a  $15 \times 15$  grid of points.

**9382** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9383** is the index of a [Fibonacci number](#) whose first 9 digits are the digits 1-9 rearranged.

**9385** is the sum of consecutive [squares](#) in 2 ways.

**9386** =  $99 + 333 + 8888 + 66$ .

**9387** is a [Smith brother](#).

**9391** has a [square](#) with the first 3 digits the same as the last 3 digits.

**9393** is the number of non-[isomorphic](#)  $3 \times 3 \times 3$  [Rubik's cube](#) positions that require exactly 5 quarter turns to solve.

**9394** is a value of  $n$  so that  $n(n+8)$  is a [palindrome](#).

**9396** is the number of [symmetric](#)  $3 \times 3$  matrices in base 6 with [determinant](#) 0.

**9403** =  $65821 / 7$ , and each digit is contained in the equation exactly once.

**9406** is the index of a [triangular number](#) containing only 3 different digits.

**9407** has a 7<sup>th</sup> root whose decimal part starts with the digits 1-9 in some order.

**9408** is the number of reduced 6×6 [Latin squares](#).

**9413** has a [cube](#) whose digits occur with the same frequency.

**9415** is the sum of the first 19 numbers that have digit sum 19.

**9416** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9421** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.

**9424** has the property that the fractional part of  $\pi^{9424}$  begins .9424....

**9426** is a value of  $n$  for which  $5n$  and  $7n$  together use each digit exactly once.

**9427** is the smallest number that can not be formed using the digit 1 at most 29 times, together with the symbols +, −, × and ÷.

**9428** is the smallest number whose [square](#) begins with four 8's.

**9431** is a number  $n$  for which  $n$ ,  $n+2$ ,  $n+6$ , and  $n+8$  are all [prime](#).

**9432** is the number of 3-colored [rooted trees](#) with 6 vertices.

**9436** is the smallest number whose 15<sup>th</sup> power contains exactly the same digits as another 15<sup>th</sup> power.

**9439** is [prime](#), and 5 closest [primes](#) are all smaller.

**9444** has a [square](#) with the first 3 digits the same as the next 3 digits.

**9445** is the closest [integer](#) to  $29^e$ .

**9450** is the denominator of  $\zeta(8) / \pi^8$ .

**9451** is the number of [binary rooted trees](#) with 19 vertices.

**9452** is the smallest number whose [cube](#) contains 5 consecutive 4's.

**9455** is the sum of the first 30 [squares](#).

**9465** is an hexagonal prism number.

**9468** is the sum of its [proper divisors](#) that contain the digit 7.

**9471** is an octagonal pyramidal number.

**9473** is a [Proth prime](#).

**9474** is a [narcissistic number](#).

**9477** is the maximum [determinant](#) of a binary  $13 \times 13$  matrix.

**9481** is a number whose sum of [divisors](#) is a  $4^{\text{th}}$  power.

**9489** is the closest [integer](#) to  $\pi^8$ .

**9493** is a member of the [Fibonacci](#)-type sequence starting with 1 and 9.

**9496** is the number of  $10 \times 10$  [symmetric permutation matrices](#).

**9497** is the number of [bicentered trees](#) with 16 vertices.

**9499** has a  $5^{\text{th}}$  power whose first few digits are 77337377....

**9500** is a [hexagonal pyramidal number](#).

**9504** is a [betrothed number](#).

**9513** is the smallest number without increasing digits that is divisible by the number formed by writing its digits in increasing order.

**9519** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**9520** is an enneagonal pyramidal number.

**9523** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9529** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 18 moves to solve starting with the hole in a corner.

**9531** is the index of a [prime Woodall number](#).

**9538** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9541** is a value of  $n$  for which  $n$  and  $8n$  together use each digit 1-9 exactly once.



**9542** is the number of ways to place a non-attacking white and black pawn on a  $11 \times 11$  chessboard.

**9545** is a number with the property that the [root-mean-square](#) of its [divisors](#) is an integer.

**9551** has the same digits as the 9551<sup>st</sup> [prime](#).

**9552** and the following 34 numbers are [composite](#).

**9555** is an odd [primitive abundant number](#).

**9563** =  $9 + 5555 + 666 + 3333$ .

**9564** is the number of paraffins with 10 carbon atoms.

**9568** =  $9 + 5 + 666 + 8888$ .

**9574** is a value of  $n$  for which  $|\cos(n)|$  is smaller than any previous [integer](#).

**9576** =  $19!!!!$ .

**9583** is the number of subsets of  $\{1, 2, 3, \dots, 20\}$  that do not contain solutions to  $x + y = z$ .

**9592** is the number of [primes](#) with 5 or fewer digits.

**9596** is the index of a [triangular number](#) containing only 3 different digits.

**9601** is a [Proth prime](#).

**9602** has the property that if each digit is replaced by its [square](#), the resulting number is a [square](#).

**9605**, when concatenated with 4 less than itself, is [square](#).

**9608** is the number of [digraphs](#) with 5 vertices.

**9615** is the smallest number whose [cube](#) starts with 5 identical digits.

**9616** is an icosahedral number.

**9623** is the number of symmetric 10-cubes.

**9625** has a [square](#) formed by inserting a block of digits inside itself.

**9627** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**9629** is a value of  $n$  for which  $2n$  and  $7n$  together use each digit exactly once.

**9632** is the number of different arrangements of 4 non-attacking [queens](#) on a  $4 \times 14$  chessboard.

**9633** is a [Smith brother](#).

**9634** is a [Smith brother](#).

**9639** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**9643** is the smallest number that can not be formed using the numbers  $2^0, 2^1, \dots, 2^7$ , together with the symbols  $+$ ,  $-$ ,  $\times$  and  $\div$ .

**9648** is a factor of the sum of the digits of  $9648^{9648}$ .

**9653** =  $99 + 666 + 5555 + 3333$ .

**9658** =  $99 + 666 + 5 + 8888$ .

**9660** is a [truncated tetrahedral number](#).

**9670** is the number of 8-digit [triangular numbers](#).

**9673** is the number of triangles of any size contained in the triangle of side 33 on a triangular grid.

**9677** is a [prime](#) that remains [prime](#) if any digit is deleted.

**9682** is a value of  $n$  for which  $n!! - 1$  is [prime](#).

**9689** is the exponent of a [Mersenne prime](#).

**9691** has the property that the concatenation of its [prime factors](#) in increasing order is a [square](#).

**9695** is the sum of the digits of  $5^{5^5}$ .

**9696** is a [strobogrammatic number](#).

**9700** is the number of inequivalent 4-digit strings, where two strings are equivalent if turning one upside down gives the other.

**9701** has a [square](#) whose digits each occur twice.

**9707** does not occur in its [factorial](#) in base 2.

**9709** has a [cube](#) whose digits occur with the same frequency.

**9711** uses the same digits as  $\pi(9711)$ .

**9716** is the number of Pyramorphix puzzle positions that require exactly 5 moves to solve.

**9720** is the order of a [perfect group](#).

**9721** is the largest [prime factor](#) of 1234567.

**9723** is a value of  $n$  for which  $n$  and  $5n$  together use each digit 1-9 exactly once.

**9724** = 1111 in base 21.

**9726** is the smallest number in base 5 whose [square](#) contains the same digits in the same proportion.

**9728** can be written as the sum of 2, 3, 4, or 5 positive [cubes](#).

**9738** is the number of [trees](#) on 22 vertices with [diameter](#) 5.

**9747** is an [Achilles number](#).

**9748** is the maximum value of  $n$  so that there exist 6 denominations of stamps so that every postage from 1 to  $n$  can be paid for with at most 14 stamps.

**9751** is the number of possible configurations of pegs (up to symmetry) after 8 jumps in solitaire.

**9753** is a value of  $n$  for which  $4n$  and  $5n$  together use each digit exactly once.

**9754** is the number of paths between opposite corners of a  $3 \times 5$  rectangle [graph](#).

**9760** can be written as the product of a number and its reverse in 2 different ways.

**9764** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**9765** is an odd [primitive abundant number](#).

**9767** is the largest 4 digit [prime](#) composed of concatenating two 2 digit [primes](#).

**9768** =  $2 \times 22 \times 222$ .

**9770** is the number of [Hamiltonian cycles](#) of a  $4 \times 12$  rectangle [graph](#).

**9775** is a number  $n$  so that the sum of the digits of  $n^n - 1$  is divisible by  $n$ .

**9777** is the number of [graphs](#) on 8 vertices with no isolated vertices.

**9779** has a [square root](#) that has four 8's immediately after the decimal point.

**9784** is the number of 2 state [Turing machines](#) which halt.

**9786** has a [square](#) whose digits each occur twice.

**9789** is the smallest number that appears in its [factorial](#) 11 times.

**9790** is the number of ways to place 2 non-attacking kings on a  $12 \times 12$  chessboard.

**9792** is the number of [partitions](#) of 59 into distinct parts.

**9793** is the smallest number that can be written as the sum of 4 distinct positive [cubes](#) in 5 ways.

**9796** has the property that dropping its first and last digits gives its largest [prime factor](#).

**9797** is the product of two consecutive [primes](#).

**9798** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**9799** is a number with the property that the [root-mean-square](#) of its [divisors](#) is an integer.

**9800** is the largest 4-digit number with single digit [prime factors](#).

**9801** is 9 times its reverse.

**9802**, when concatenated with one less than it, is [square](#).

**9803** is the number of different [degree sequences](#) possible for a graph with 19 edges.

**9805** is the number of subsequences of {1,2,3,...15} in which every odd number has an even neighbor.

**9809** is a [stella octangula number](#).

**9823** is the number of [centered trees](#) with 16 vertices.

**9824** is a structured snub cubic number.

**9828** is the order of a [non-cyclic simple group](#).

**9831** has a base 6 representation which is the reverse of its base 5 representation.

**9839** would be [prime](#) if preceded and followed by a 1, 3, 7, or 9.

**9841** = 11111111 in base 3.

**9843** is the number of vertices in a [Sierpinski triangle](#) of order 8.

**9849** is a centered tetrahedral number.

**9854** is the index of a [triangular number](#) containing only 3 different digits.

**9855** is a [rhombic dodecahedral number](#).

**9856** is the number of ways to place 2 non-attacking [knights](#) on a 12×12 chessboard.

**9857** is a [Proth prime](#).

**9858** is a number whose sum of [divisors](#) is a 4<sup>th</sup> power.

**9861** is a dodecagonal pyramidal number.

**9862** is the number of [knight's tours](#) on a 6×6 chessboard.

**9865** is the number of digits in the 15<sup>th</sup> [Fermat number](#).

**9868** is the number of hydrocarbons with 10 carbon atoms.

**9871** is the largest 4-digit [prime](#) with different digits.

**9872** =  $8 + 88 + 888 + 8888$ .

**9876** is the largest 4-digit number with different digits.

**9877** has a  $4^{\text{th}}$  power that is the sum of four  $4^{\text{th}}$  powers.

**9878** has a  $10^{\text{th}}$  power whose first few digits are 88448448....

**9880** =  $40C_3$ .

**9886** is a [strobogrammatic number](#).

**9888** is the number of [connected graphs](#) with 8 vertices whose complements are also [connected](#).

**9894** is the number of 3-colored [trees](#) with 7 vertices.

**9896** is the number of Pyraminx puzzle positions that require exactly 6 moves to solve.

**9900** =  $10011010101100_2 = 9900_{10} = 1881_{19} = 1199_{21}$ , each using two digits the same number of times.

**9901** is the only [prime](#) known whose [reciprocal](#) has period 12.

**9910** is the number of fixed [9-ominoes](#).

**9911** has the property that the sum of its [prime factors](#) is equal to the product of its digits.



**9912** is the number of [graceful permutations](#) of length 14.

**9913**, when followed by any of its digits, is [prime](#).

**9918** is the maximum number of pieces a [torus](#) can be cut into with 38 cuts.

**9919** can be written as the difference between two positive [cubes](#) in more than one way.

**9920** is the maximum number of regions a [cube](#) can be cut into with 39 cuts.

**9928** is a value of  $n$  for which  $\text{reverse}(\varphi(n)) = \varphi(\text{reverse}(n))$ .

**9929** is the number of  $3 \times 3$  sliding puzzle positions that require exactly 26 moves to solve starting with the hole on a side.

**9933** =  $441 + 442 + \dots + 462 = 463 + 464 + \dots + 483$ .

**9941** is the exponent of a [Mersenne prime](#).

**9944** =  $10011011011000_2 = 9944_{10} = 2E2E_{15} = 11BB_{21}$ , each using two digits the same number of times.

**9945** =  $17$ [!!!!](#).

**9951** is the number of ways to color the vertices of a triangle with 31 colors, up to rotation.

**9959** is a member of the [Fibonacci](#)-type sequence starting with 2 and 5.

**9960** is the number of  $3 \times 3 \times 3$  sliding puzzle positions that require exactly 8 moves to solve.

**9966** is the largest 4-digit [strobogrammatic number](#).

**9973** is the largest 4-digit [prime](#).

**9976** has a [square](#) formed by inserting a block of digits inside itself.

**9984** is the maximum number of regions space can be divided into by 32 [spheres](#).

**9985** is the number of [hyperbolic knots](#) with 13 [crossings](#).

**9988** is the number of [prime knots](#) with 13 [crossings](#).

**9992** is the number of  $2 \times 2 \times 2$  [Rubik's cube](#) positions that require exactly 5 moves to solve.

**9995** has a [square](#) formed by inserting a block of digits inside itself.

**9996** has a [square](#) formed by inserting a block of digits inside itself.

**9998** is the smallest number  $n$  for which the concatenation of  $n$ ,  $(n+1)$ , ...  $(n+21)$  is [prime](#).

**9999** is a [Kaprekar number](#).

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